

NEBRASKA PROFIT OPPORTUNITIES FOR MANUFACTURERS OF INDUSTRIAL MACHINERY AND EQUIPMENT

prepared by

NEBRASKA PUBLIC POWER DISTRICT
Economic Development Department
P.O. Box 499
Columbus, Nebraska 68602-0499
sites.nppd.com



Nebraska Public Power District
Nebraska's Energy Leader



NEBRASKA DEPARTMENT OF
ECONOMIC DEVELOPMENT
Division of Research
P.O. Box 94666
Lincoln, Nebraska 68509
www.ded.state.ne.us

University of Nebraska Engineering Extension
W191 Nebraska Hall
P.O. Box 880535
Lincoln, Nebraska 68588-0535
www.engext.unl.edu/et/engext.html



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EXECUTIVE SUMMARY

Nebraska offers a wide range of locational advantages to manufacturers of industrial machinery products. An attractive business climate, a well-educated and productive labor force, reliable supplies of low cost energy, and a location central to national markets are among the leading advantages of a Nebraska location for the industrial machinery industry.

This study discusses in detail how a plant location in Nebraska enables industrial machinery establishments to better respond to market conditions and significantly improve the competitive position of their companies. The wide range of locational advantages that Nebraska offers is discussed and an analysis of the geographically-variable labor and energy costs for a model plant is presented. Besides its labor and energy cost advantage, Nebraska offers a central location and a combined high quality of life and low cost of living.

To facilitate the analysis of the geographically-variable production costs for industrial machinery manufacturers, a model plant is defined. The model plant is assumed to employ 50 production workers and manufacture a product that is representative of the industrial machinery and equipment industry (NAICS 333).

Seventeen locations are selected for examination in the study. In addition to Nebraska, these locations include states that currently have significant production of industrial machinery and equipment products as well as surrounding states with which Nebraska typically competes for industrial location projects.

As the variable cost analysis indicates, a manufacturer of industrial machinery located in Nebraska can enjoy a significant competitive advantage. Production labor cost is the most significant variable cost factor for manufacturers of these products. Estimated annual labor-related costs for operating the model plant include the direct wages paid to production workers and costs associated with workers' compensation insurance, unemployment insurance, social security, and other fringe benefits.

Compared to the 16 alternative states, Nebraska is found to offer an annual savings of \$234,980 in labor-related costs, which is 13.0 percent less than the average labor costs for the other 16 states.

This study also concludes that a Nebraska plant location offers a significant energy cost advantage.

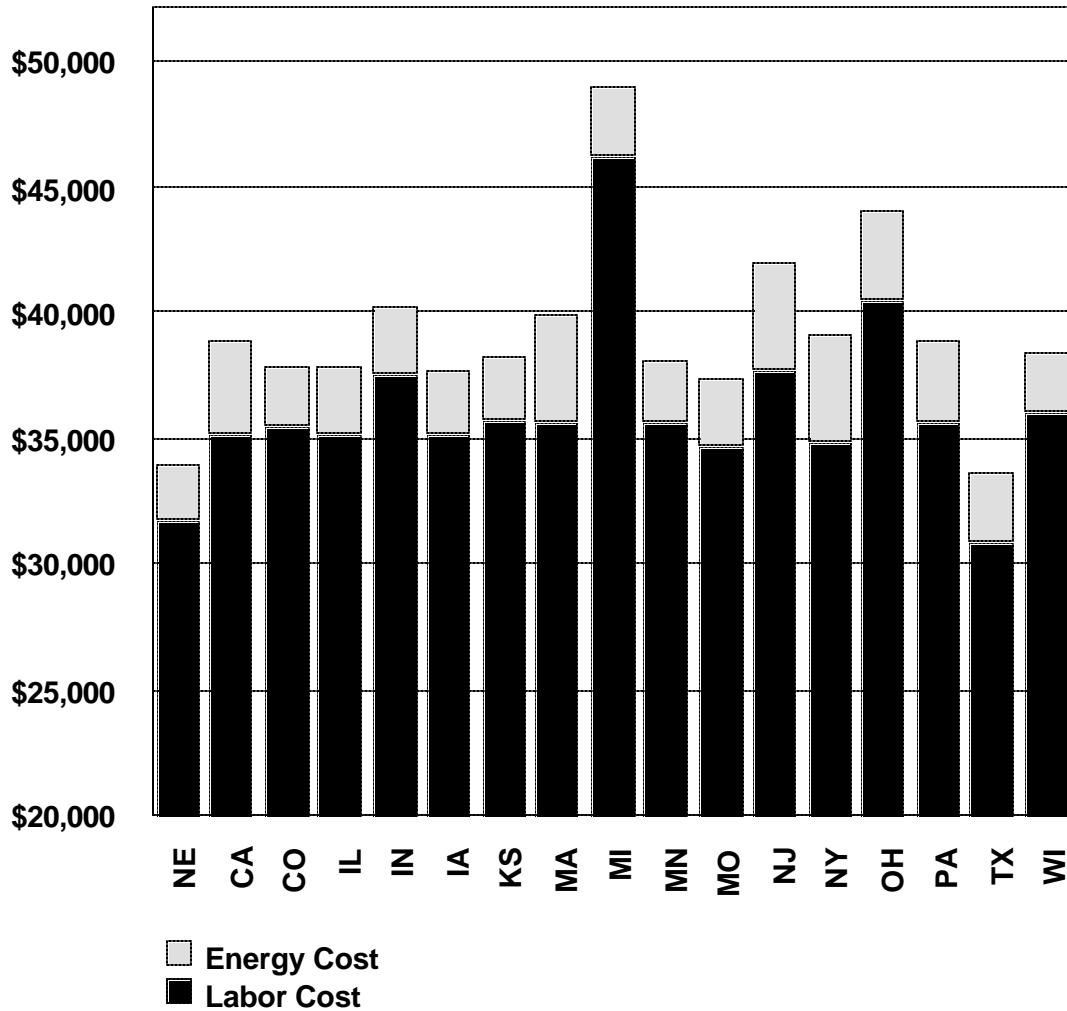
Electric rates in the alternative states average 41.8 percent higher, and the average industrial gas rate is 14.9 percent more. Combining these advantages, Nebraska's energy cost for the model plant is 26.5 percent less than the average for the other 16 alternative locations.

Together, Nebraska's annual labor and energy costs for the model plant are \$276,060 less than the average costs for the 16 alternative states. Conversely, the average labor and energy costs in the other 16 states are 16.3 percent more than the Nebraska labor and energy costs.

Figure 1 provides a summary of the labor and energy costs for the model plant for each of the 17 alternate plant sites. These costs are shown on a per production worker basis.

Figure 1

Labor and Energy Costs per Production Worker for Industrial Machinery Manufacturers (NAICS 333)



Calculated labor (wages, workers' compensation insurance, unemployment insurance, social security and fringe benefits) and energy (electricity and natural gas) costs for a manufacturer of industrial machinery and equipment (NAICS 333).

PART A

THE INDUSTRIAL MACHINERY AND EQUIPMENT INDUSTRY

The industrial and other machinery and equipment industry sector is one of the United States' largest industries. As the data in Table 1 indicate, the estimated value of product shipment from U.S. manufacturers of industrial and other machinery and equipment totaled \$404,494.9 million in 1997.

The level of industry output in 1997 represented an 85.8 percent increase from the 1987 level of industry shipments. However, the growth trend in shipments for the industry has not been constant over this period. For example, the average annual rate of growth in industry shipments was 8.0 percent between 1987 and 1997, which included an average annual growth rate of 3.5 percent for the 1987-1992 period and a 9.4 percent annual growth rate between 1992 and 1997. Industry shipments for the industrial and other machinery and equipment industry grew by 5.9 percent from 1996 to 1997.

Employment trends in the industrial machinery and equipment industry indicate that increases in output

have resulted largely from increased capital investment and significant increases in labor productivity. During the 1987-1997 period, industry employment has remained relatively stable for both production workers and total industry employment. Total employment in the industrial machinery and equipment industry increased by only 6.8 percent between 1987 and 1997, while industry output had increased by 85.8 percent for the same period. Employment in the industrial machinery and equipment industry totaled 1,970,700 in 1997, with 1,295,000 of these employees classified as production workers.

Capital expenditures in the industrial machinery and equipment industry have grown steadily over the 1987-1997 decade. The 1997 level of new capital expenditures of \$13,920.4 million represented a 21.6 percent increase from the 1996 level of capital expenditures. In 1997, the rate of capital investment in the industry was 7.1 percent of industry value added.

Table 1

**The Industrial Machinery and Equipment Industry (SIC 35),
Characteristics and Trends, Selected Years, 1982-1997**

Year	Value of Shipments (Million \$)	Capital Expenditures (Million \$)	Total Employees (1,000)	Production Workers (1,000)
1982	187,895.7	8,537.2	2,188.7	1,358.0
1987	217,669.9	6,954.6	1,844.4	1,142.8
1992	258,273.1	8,062.7	1,742.1	1,037.7
1996	381,793.7	11,450.7	1,980.5	1,287.0
1997 ^(a)	404,494.9	13,920.4	1,970.7	1,295.0

^(a) 1997 data for the industrial machinery industry as defined by the 1987 definition for SIC 35, Industrial Machinery and Equipment.

Source: U.S. Bureau of the Census, *Census of Manufactures, 1977, 1982, 1987, 1992, 1997*, and *Annual Survey of Manufactures, 1996*.

Industry Structure

The *1987 Standard Industrial Classification Manual* (SIC) classified the industrial machinery and equipment industry into nine major categories in order to define the major components of the industry. These components by SIC code are:

351	Engines and turbines
352	Farm and garden machinery
353	Construction and related machinery
354	Metalworking machinery
355	Special industry machinery
356	General industrial machinery
357	Computers and office equipment
358	Refrigeration and service machinery
359	Industrial machinery, n.e.c. (not elsewhere classified)

Beginning with the *1997 Census of Manufactures*, the classification of business (and manufacturing) types utilizes the new North American Industrial Classification System (NAICS) codes instead of the previously used SIC codes. The *1997 North American Industrial Classification Manual* significantly changed the definition of the industrial machinery and equipment industry and renamed this industry group as the machinery industry. The machinery manufacturing economic sector defined by the 1997 NAICS codes are as follows:

3331 Agriculture, Construction, and Mining Machinery Manufacturing

33311 Agricultural Implement Manufacturing

333111	Farm machinery and equipment manufacturing
333112	Lawn and garden tractor and home lawn and garden equipment manufacturing

33312 Construction Machinery Manufacturing

33313 Mining and Oil and Gas Field Machinery Manufacturing

333131	Mining machinery and equipment manufacturing
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333132	Oil and gas field machinery and equipment manufacturing
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3332 Industrial Machinery Manufacturing

33321 Sawmill and Woodworking Machinery Manufacturing

33322 Plastics and Rubber Industry Machinery Manufacturing

33329 Other Industrial Machinery Manufacturing

333291	Paper industry machinery manufacturing
333292	Textile machinery manufacturing
333293	Printing machinery and equipment manufacturing
333294	Food product machinery manufacturing
333295	Semiconductor machinery manufacturing
333298	All other industrial machinery manufacturing

3333 Commercial and Service Industry Machinery Manufacturing

33331 Commercial and Service Industry Machinery Manufacturing

333311	Automatic vending machine manufacturing
333312	Commercial laundry, drycleaning and pressing machinery manufacturing
333313	Office machinery manufacturing
333314	Optical instrument and lens manufacturing
333315	Photographic and photocopying equipment manufacturing
333319	Other commercial and service industry machinery manufacturing

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

33341 Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing

333411	Air purification equipment manufacturing
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333412	Industrial and commercial fan and blower manufacturing	333913	Measuring and dispensing pump manufacturing
333414	Heating equipment (except warm air furnaces) manufacturing	33392 Material Handling Equipment Manufacturing	
333415	Air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing	333921	Elevator and moving stairway manufacturing
3335 Metalworking Machinery Manufacturing		333922	Conveyor and conveying equipment manufacturing
33351 Metalworking Machinery Manufacturing		333923	Overhead traveling crane, hoist, and monorail system manufacturing
333511	Industrial mold manufacturing	333924	Industrial truck, tractor, trailer, and stacker machinery manufacturing
333512	Machine tool (metal cutting types) manufacturing	33399 All Other General Purpose Machinery Manufacturing	
333513	Machine tool (metal forming types) manufacturing	333991	Power-driven handtool manufacturing
333514	Special die and tool, die set, jig, and fixture manufacturing	333992	Welding and soldering equipment manufacturing
333515	Cutting tool and machine tool accessory manufacturing	333993	Packaging machinery manufacturing
333516	Rolling mill machinery and equipment manufacturing	333994	Industrial process furnace and oven manufacturing
333518	Other engine equipment manufacturing	333995	Fluid power cylinder and actuator manufacturing
3336 Engine, Turbine, and Power Transmission Equipment Manufacturing		333996	Fluid power pump and motor manufacturing
33361 Engine, Turbine, and Power Transmission Equipment Manufacturing		333997	Scale and balance (except laboratory) manufacturing
333611	Turbine and turbine generator set units manufacturing	333999	All other miscellaneous general purpose machinery manufacturing
333612	Speed changer, industrial high-speed drive, and gear manufacturing		
333613	Mechanical power transmission equipment manufacturing		
333618	Other engine equipment manufacturing		
3339 Other General Purpose Machinery Manufacturing			
33391 Pump and Compressor Manufacturing			
333911	Pump and pumping equipment manufacturing		
333912	Air and gas compressor manufacturing		

As the reader will note, the machinery manufacturing industry (NAICS 333) is subdivided into seven four-digit NAICS codes, with further subdivision into 13 five-digit NAICS codes. Some of the five-digit codes are divided further into divisions of six-digit NAICS categories.

The data presented in Table 1 showed the historical trends for industrial machinery and equipment industry (SIC 35), as defined by the 1987 SIC industry classification scheme. The data presented in Table 2 (and represented in Figure 2) provide a basic description of the machinery manufacturing industry with further disaggregation into the major four- and five-digit NAICS industry subgroups. As indicated by these data, the largest five-digit industry subgroups are NAICS 33329 (other

industrial machinery manufacturing product) which recorded 1997 shipments of \$31,366.7 million, NAICS 33341 (ventilation, heating, air-conditioning, and commercial refrigeration manufacturing) with 1997 shipments of \$30,758.5 million, NAICS 33351 (metalworking machinery manufacturing) with 1997 shipments of \$30,446.7 million, and NAICS 33361 (engines, turbine, and power transmission equipment manufacturing) with 1997 shipments of \$30,036.2 million. These four industry subgroups accounted for 45.7 percent of the total value of industry shipments for the machinery manufacturing industry (NAICS 333) in 1997. These industry subgroups additionally accounted for 55.9 percent of the industry establishments and 50.9 percent of the production workers employed in the machinery manufacturing industry in 1997.

In terms of the average size of establishments, the machinery manufacturing industry (NAICS 333) had 30.5 production workers per establishment in 1997. This average size ranged from 16.8 production workers per establishment for NAICS 33351 (metalworking machinery manufacturing) to 82.2 production workers per establishment for NAICS 33361 (engine, turbine, and power transmission equipment manufacturing).

In terms of value of shipments or output per establishment, the subgroup NAICS 33361 (engine, turbine, and power transmission equipment manufacturing) led the rest of the industry with average shipments per establishment of \$31.6 million. This level of shipments was 3.6 times the average shipment per establishment of \$8.8 million for the industry as a whole.

Capital investment for the machinery manufacturing industry totaled \$8,831.0 million in 1997, which represented an investment of \$0.0649 for each dollar of value added (6.49 percent of value added). Industry subgroups where the ratio of capital investment to value added exceeded this industry average in 1997 included NAICS 33329 (other industrial machinery manufacturing) at 7.9 percent, NAICS 33351 (metalworking machinery manufacturing) at 7.6 percent, NAICS 33361 (engine, turbine, and power transmission equipment manufacturing) at 7.5 percent, and NAICS 33311 (agricultural implement manufacturing) at 11.3 percent. The industry subgroup recording the lowest rate of capital investment was NAICS 33321 (sawmill and woodworking machinery manufacturing) for which capital investment was only 2.6 percent of value added in 1997.

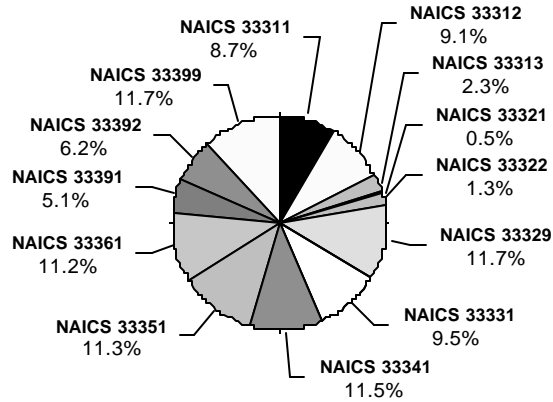
Table 2

Industrial and Other Machinery Industry (NAICS 333), Number of Companies and Establishments, All Employees and Production Workers, Value of Shipments, Value Added, and Capital Expenditures by Industry Group, 1997

NAICS Code	Industry Description	Number of Companies	Number of Establishments	All Employees	Production Workers	Value of Shipments	Value Added	Capital Expenditures
----- (Thousand Dollars) -----								
333	Machinery Manufacturing	28,791	30,568	1,410,021	932,966	268,513,586	135,983,104	8,830,998
33311	Agricultural Implement Manufacturing	1,390	1,482	94,847	70,709	23,363,932	10,321,064	694,600
33312	Construction Machinery Manufacturing	984	1,075	88,092	59,470	24,308,840	10,004,670	551,672
33313	Mining and Oil & Gas Field Machinery Mfg.	497	563	29,452	19,512	6,240,035	3,693,104	236,404
33321	Sawmill and Woodworking Machinery Mfg.	314	327	9,117	5,793	1,321,752	690,569	18,250
33322	Plastics and Rubber Industry Machinery Mfg.	424	452	18,007	10,065	3,481,908	1,903,606	88,809
33329	Other Industrial Machinery Mfg.	3,729	3,914	161,970	92,891	31,366,669	16,642,552	1,314,565
33331	Commercial and Service Industry Machinery Mfg.	2,478	2,598	124,925	73,529	25,429,889	13,859,757	838,583
33341	Ventilation, Heating, Air Conditioning, and Commercial Refrigeration Equipment Mfg.	1,592	1,841	174,999	128,942	30,758,547	14,525,339	783,128
33351	Metalworking Machinery Manufacturing	10,096	10,386	243,180	174,743	30,446,666	19,280,029	1,465,859
33361	Engine, Turbine, and Power Transmission Equipment Mfg.	807	950	113,149	78,128	30,036,165	14,147,838	1,058,003
33391	Pump and Compressor Manufacturing	742	874	68,687	40,452	13,778,186	6,703,163	393,246
33392	Material Handling Equipment Manufacturing	1,756	1,855	92,842	59,858	16,660,456	7,188,356	413,202
33399	All Other General Purpose Machinery Mfg.	3,982	4,251	190,754	118,874	31,320,541	17,023,057	974,677

Source: U.S. Bureau of the Census, *1997 Census of Manufactures, Industry Series* (EC97M-3331A - EC97M-3339N).

Figure 2
Value of Shipments by Industry Subgroup,
Machinery Manufacturing (NAICS 333), 1997



Total 1997 Shipments - \$268,513.6 Million

- | | |
|--|---|
| NAICS 33311 Agricultural implement mfg. | NAICS 33341 Ventilation, heating, air-conditioning & comm refriger. equip. mfg. |
| NAICS 33312 Construction machinery mfg. | NAICS 33351 Metalworking machinery mfg. |
| NAICS 33313 Mining & oil & gas field mch. mfg. | NAICS 33361 Engine, turbine, and power transmission equip. mfg. |
| NAICS 33321 Sawmill and woodworking mch. mfg. | NAICS 33391 Pump & compressor mfg. |
| NAICS 33322 Plastics & rubber industry mch. mfg. | NAICS 33392 Material handling equip. mfg. |
| NAICS 33329 Other Industry machinery mfg. | NAICS 33399 All other general purpose mch. mfg. |
| NAICS 33331 Commercial & service industry machinery mfg. | |

Industry Production Characteristics

Table 3 presents selected production characteristics for the machinery manufacturing industry (NAICS 333) for 1997. As shown in the table, the industry was made up of 28,791 companies with 30,568 establishments resulting in 1.06 establishments for each company in the industry group. Also indicated by the data is the average size of establishments in the industry of 30.5 production workers per establishment.

Table 3

Production Characteristics for the Industrial and Other Machinery Manufacturing Industry Sector (NAICS 333), 1997

	1997
Companies	
Number	28,791
Establishments	
Number	30,568
With 20+ Employees	11,188
Percent with 20+ Emp. [%]	36.6
Avg. # Est. per Company	1.06
All Employees	
Number	1,410,021
Production Workers	
Number	932,966
Hours [Thousands]	1,889,929
Wages [\$1,000]	28,990,630
Average Hourly Wage [\$]	15.34
Avg. Prd. Wrkr./Est. [##]	30.5
Value Added by Manufacture [\$1,000]	135,983,104
Cost of Materials [\$1,000]	133,025,103
Value of Shipments [\$1,000]	268,513,586
Cost of Purchased Fuels and Electric Energy	
Electric Energy [\$1,000]	1,550,228
Purchased Fuels [\$1,000]	507,701
Quantity of Purchased Electric Energy [1,000 kWh]	26,850,547

Source: U.S. Bureau of the Census, *1997 Census of Manufactures, Industry Series* (EC97M-3331A - EC97M-3339N).

Because of the change in industry classification between 1992 and 1997, it is not possible to review trends in production characteristics for the industrial machinery and equipment industry over time. However, Table 4 provides historical trends for the industry over the 1987–1996 period using a modification of the old industry classification, SIC 35. As the definition of the machinery industry using the NAICS code excludes the computer

manufacturing industry, the data presented in Table 4 for the industrial machinery and equipment industry (SIC 35) excludes the computer and office equipment industry subgroup (SIC 357).

The data presented in Table 4 indicate that establishments in the industrial machinery industry (SIC 35, except for SIC 357) are more labor intensive than manufacturing establishments generally. In 1996, production workers accounted for 69.2 percent of total employment in the industry, compared to 65.2 percent for all manufacturing. The industry's value added per production worker was \$122,666 in 1996, while for all manufacturing it was \$143,794.

The importance of production workers relative to total employment in the redefined industrial machinery industry is also increasing. As shown by the data presented in Table 4, the number of production workers in the industry grew from 997,200 in 1992 to 1,190,900 in 1996—a gain of 19.4 percent. Moreover, total production-worker hours grew by 21.7 percent between 1992 and 1996. As also indicated by the data presented in Table 4, total production worker wages grew by 29.9 percent between 1992 and 1996. These trends point to an increasing orientation of the industry toward reliable and productive sources of labor.

In terms of total energy costs relative to value added by manufacture, the industrial machinery and equipment industry is similar to manufacturing generally. However, the industrial machinery industry has a higher reliance on electricity in its energy mix. As the data presented in Table 4 indicate, in 1996 the cost of purchased electricity comprised 75.9 percent of total energy costs among manufacturers of industrial machinery and equipment, compared to 59.6 percent for all manufacturing establishments. The data presented in Table 3 indicates that in 1997 the cost of electricity accounted for 75.3 percent of total energy costs for the redefined industry group, machinery manufacturers (NAICS 333).

Given the high degree of dependence on electricity as an energy source, it is evident that the industrial and other machinery and equipment manufacturing industry derives above-average benefits from readily available, relatively low cost sources of electricity.

Table 4**Production Characteristics for the Industrial Machinery and Equipment Industry (SIC 35_)^a, 1987, 1992, and 1996**

	1987	1992	1996	% Chg. 1987-1996
Establishments				
Number [thousands]	50,035	51,729	N/A	N/A
With 20+ Employees [thousands]	12,906	13,209	N/A	N/A
All Employees				
Number [thousands]	1,516.4	1,488.4	1,721.5	13.5
Payroll [million \$]	39,880.2	47,088.1	59,518.3	49.2
Production Workers				
Number [thousands]	1,021.8	997.2	1,190.9	16.5
Hours [millions]	2,068.8	2,044.6	2,487.9	20.3
Wages [million \$]	23,518.0	26,980.2	35,045.6	49.0
Average Hourly Wage [\$]	11.37	13.20	14.09	23.9
Value Added by Manufacture				
[million \$]	85,790.7	103,694.2	146,082.7	70.3
Cost of Materials				
[million \$]	71,231.3	87,839.0	133,402.0	87.3
Value of Shipments				
[million \$]	157,029.3	191,952.3	278,523.8	77.4
Cost of Purchased Fuels and Electric Energy				
Electric Energy [million \$]	N/A	1,655.7	1,964.4	N/A
Purchased Fuels [million \$]	N/A	510	622.6	N/A

^(a) Data for Industrial Machinery and Equipment (SIC 35), except Computers and Office Equipment (SIC 357).

N/A - Not Available

Source: U.S. Bureau of the Census, Census of Manufactures, 1992, General Summary (MC92-S-1), and Annual Survey of Manufactures, 1996.

Industry Location Characteristics

Showing the geographic distribution of the industrial and other machinery and equipment industry, Table 5 presents data on establishments, employment and wages, value added by manufacture, and value of shipments for 17 selected states. As indicated in the table, the 17 states accounted for 21,906, or 71.7 percent, of the 30,568 establishments included in machinery manufacturing industry (NAICS 333) in 1997.

Included among these state are Nebraska and neighboring states that typically compete with Nebraska for plant locations. All 17 states are

included in this study as alternative sites for plant locations and are evaluated in Part B of this report using the geographically variable labor and energy costs.

In terms of employment and value added by manufacture, the industrial and other machinery and equipment manufacturing industry is largest in Illinois, followed by Ohio, California, Michigan, New York, Wisconsin, and Texas. As the data presented in Table 5 indicate, the 17 states included in this study accounted for 70.5 percent of the production workers and 74.4 percent of the total value added by the industrial and other machinery and equipment manufacturing industry in 1997.

Table 5**Location Characteristics of Establishments in the Industrial and Other Machinery Manufacturing Industry (NAICS 333), 1997**

State	Number of Establishments	Number of Est. with 20 Emp. or More	Number of Prod. Wrkrs	Value Added (\$1,000)	Value of Shipments (\$1,000)	Capital Expenditures (\$1,000)	Average Hourly Earnings (\$)
Nebraska	205	74	8,471	904,487	1,882,780	84,576	14.55
California	3,112	966	62,601	9,935,742	19,128,452	898,135	14.96
Colorado	363	98	6,736	976,456	1,806,781	66,486	13.87
Illinois	2,202	826	77,019	13,216,153	26,221,019	711,429	17.65
Indiana	1,064	425	35,628	5,136,889	10,524,471	321,883	15.85
Iowa	443	207	25,705	5,382,767	11,555,828	225,835	18.86
Kansas	347	154	14,349	1,660,941	3,524,664	119,363	13.87
Massachusetts	833	316	18,686	3,233,548	5,879,368	223,466	17.12
Michigan	2,849	1,145	71,610	9,580,475	18,100,390	666,126	18.04
Minnesota	904	323	24,665	3,796,346	7,387,437	238,244	15.12
Missouri	579	213	22,415	2,569,904	4,866,171	188,306	13.04
New Jersey	915	280	15,712	2,153,163	4,187,160	122,647	15.86
New York	1,315	469	44,290	9,378,709	17,071,991	471,975	17.53
Ohio	2,260	925	72,791	10,033,728	19,159,125	638,676	15.41
Pennsylvania	1,531	626	47,288	6,813,741	12,632,173	413,016	16.14
Texas	1,726	632	54,224	7,997,116	15,160,842	494,550	13.47
Wisconsin	1,258	551	55,652	8,413,890	16,232,674	544,925	17.03
Total Sel. States	21,906	8,230	642,635	101,184,055	195,321,326	6,429,638	16.17
Percent of U.S.	71.7	73.6	70.5	74.4	72.7	72.8	N/A
Total U.S.	30,568	11,188	932,966	135,983,104	268,513,586	8,830,998	15.34

Source: U.S. Bureau of the Census, *1997 Census of Manufactures*, Geographic Area Series.

Industry Outlook

The outlook for the industrial and other machinery and equipment manufacturing industry is dependent on many factors, including the overall performance of the U.S. economy, economic and business conditions internationally, and the competitive position of U.S. manufacturers relative to their foreign competitors.

Over the longer term, while employment in the industrial and other machinery and equipment

sector is projected to remain relatively stable, the demand for output of the industry is expected to record positive growth trends. As indicated by the data presented in Table 6, the value of shipments, or output, for the industrial machinery and equipment manufacturing industry sector (SIC 35), excluding the computer and office equipment subgroup (SIC 357) is projected to grow by 32.5 percent in inflation-adjusted terms between 1998 and 2008.

Table 6**Projections of Employment and Output for the Manufacturing Sector and the Industrial Machinery and Equipment Industry (SIC 35^(a)), 1998-2008**

Sector	1998	2008	% Chg. 1998-2008
All Manufacturing			
Employment [1,000]	19,206.2	19,125.5	-0.4
Output [Million \$] ^(a)	3,869,283	5,722,106	47.9
SIC 35 - Industrial Machinery and Equipment (except SIC 357)			
Employment	2,239.8	2,227.4	-0.6
Output [Million \$] ^(b)	717,401.9	2,082,331.6	190.3
SIC 351 - Engines and Turbines			
Employment	84.5	69.8	-17.4
Output [Million \$] ^(b)	24,034.8	28,618.0	19.1
SIC 352 - Farm and Garden Machinery			
Employment	109.3	96.2	-12.0
Output [Million \$] ^(b)	21,603.6	27,764.7	28.5
SIC 353 - Construction and Related Machinery			
Employment	254.4	271.1	6.6
Output [Million \$] ^(b)	40,554.9	51,730.0	27.6
SIC 354 - Metalworking Machinery & Equipment			
Employment	355.4	328.7	-7.5
Output [Million \$] ^(b)	32,745.7	39,994.2	22.1
SIC 355 - Special Industry Machinery			
Employment	182.9	191.0	4.4
Output [Million \$] ^(b)	33,404.9	50,663.8	51.7
SIC 356 - General Industrial Machinery & Equipment			
Employment	274.8	279.0	1.5
Output [Million \$] ^(b)	37,889.3	52,973.6	39.8
SIC 358 - Refrigeration & Service Industry Machinery			
Employment	204.3	220.4	7.9
Output [Million \$] ^(b)	39,542.1	48,745.7	23.3
SIC 359 - Industrial Machinery, N.E.C.			
Employment	390.1	399.6	2.4
Output [Million \$] ^(b)	41,175.5	58,458.6	42.0

^(a) Data for the Industrial Machinery and Equipment Sector (SIC 35), except Computer and Office Equipment (SIC 357).

^(b) Output stated in millions of chain weighted constant (1992) dollars.

Source: U.S. Bureau of Labor Statistics (BLS), Office of Employment Projections (<http://stats.bls.gov/emphome.htm>). Employment and output projections for 2008 released November 30, 1999.

As the data presented in Table 6 indicate, the projected growth in output for the industrial machinery and equipment sector is less than the projected increase in output for all manufacturing of 47.9 percent.

The combination of increasing output with stable employment levels suggests that labor productivity will continue to be an important factor affecting the industrial machinery and equipment industry. On balance, the factors affecting companies in the industry will depend to a great extent on the ability

of individual companies or establishments to compete within their industry and in the markets for their products. While many external factors will influence the overall performance of the industry, the outlook for the individual companies that can control costs and respond to market opportunities will be significantly improved. Part B of this study discusses how manufacturers of industrial machinery products can better respond to market conditions and significantly improve their competitive positions with a Nebraska plant location.

PART B

NEBRASKA ADVANTAGES FOR MANUFACTURERS OF INDUSTRIAL MACHINERY AND EQUIPMENT

Nebraska offers a wide range of locational advantages to manufacturers of industrial machinery products. In the continuing portion of this study, Nebraska resources and location attributes important to manufacturers of industrial machinery products are presented and discussed. An evaluation of geographically variable labor and energy costs for selected states follows, using a model establishment manufacturing industrial machinery products.

I. NEBRASKA LOCATION RESOURCES

Nebraska lies near both the population and the geographic centers of the United States (Figure 3). The nation's population center moved across the Mississippi River for the first time in 1980 and continues to shift westward. The current population center is in Crawford County, Missouri, and the geographic center is in Butte County, South Dakota (the geographic center of the 48 contiguous states is Smith County, Kansas). Because of this central location, more than **50 million** people live within a 500-mile radius of Nebraska.

In addition to being a prominent location for national markets, Nebraska is well-situated to serve international markets, which are important for many industrial machinery manufacturers. For example, the Union Pacific's main railroad line in central Nebraska is the busiest freight corridor in the world; many of the trains carry grain to West Coast ports for shipment around the world. Also, the state currently has operating Foreign Trade Zones in Omaha (Zone No. 19, Grantee/Operator: Dock Board of the City of Omaha/Douglas Civic Center) and in Lincoln (Zone No. 59, Grantee/Operator: Lincoln Chamber of Commerce Foreign-Trade Zone). Foreign Trade Zones reduce or eliminate duties and excise taxes by allowing "domestic activity involving foreign items to take place as if it were outside of U.S. Customs territory."

Transportation

Nebraska's central location is especially advantageous for transportation services. The state's communities are connected by a good highway system that includes 22,025 miles of hard-surfaced roads. That system includes a 482-mile stretch of Interstate Highway 80, the most traveled east-west transcontinental route of the interstate highway system. North-south interstate highways that add to Nebraska's market include I-29, which passes along the state's eastern border in Iowa, and I-25, which passes in close proximity to the state's western border.

Largely because of Nebraska's good interstate connections, one of the largest trucking companies in the country, Werner Enterprises, is headquartered in Omaha. In addition, more than 100 other Class I and II motor freight carriers provide regular motor carrier service to nearly all Nebraska communities. They provide one-day service to such cities as Chicago, Denver, Kansas City, Minneapolis, and St. Louis.

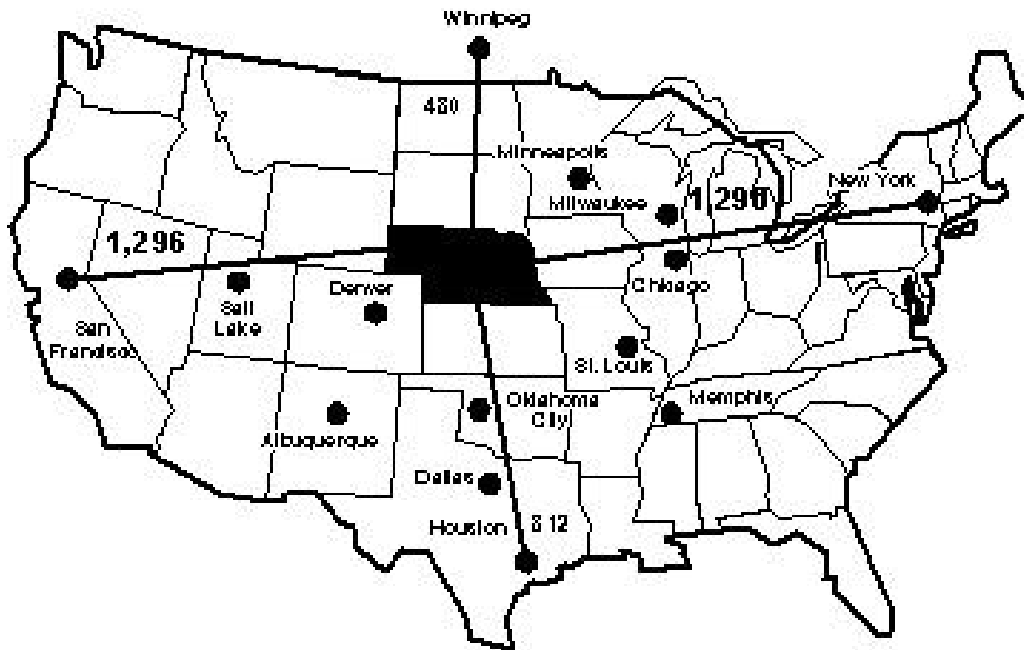
Two major railroads serve the state — the Burlington North Santa Fe and the Union Pacific. There are 13 freight railroads operating more than 3,600 miles of track throughout Nebraska. A reciprocal switching agreement is in effect for all railroads. Omaha is one of the nation's major rail centers, serving as the headquarters of the Union Pacific. The most direct mid-continent route to the West Coast passes through Nebraska with branches that terminate in Portland, Spokane, Seattle, and Los Angeles. No major city in the United States is more than five days away by rail from Nebraska.

Commercial airline service is available in ten Nebraska cities, providing direct service to major hubs. Air freight service is provided to six additional communities. A total of 92 public-use airports are located throughout the state.

With the Missouri River forming Nebraska's eastern border, the state is a western terminus for barge traffic. Barges have access to both the

Gulf of Mexico via the Mississippi River and to the Atlantic Ocean via the Great Lakes and the St. Lawrence Seaway.

Figure 3
Access To and From Nebraska



Utilities

In providing a full range of reliable utilities with many cost advantages, Nebraska offers additional benefits to manufacturers of industrial and other machinery and equipment. Nebraska's industrial electric rates are 28.9 percent less than the U.S. average and are among the lowest of the 48 contiguous states (Figure 4). This benefit is of particular importance to the industrial machinery and equipment industry, with its high level of electricity use relative to total energy consumption. A statewide grid system with regional interconnections assures reliability of service and adequacy of supply.

One of the reasons for Nebraska's low electric rates is its close proximity to the vast low-sulfur coal fields of eastern Wyoming. It is also the only state in the nation with electric service provided entirely by public power. Nebraska's two largest electric utilities, Nebraska Public Power District

(NPPD) and Omaha Public Power District (OPPD), have under their control an efficient and dependable "mix" of generating systems to supply current and projected needs; the mix includes coal, nuclear, hydro, gas, oil, and diesel sources.

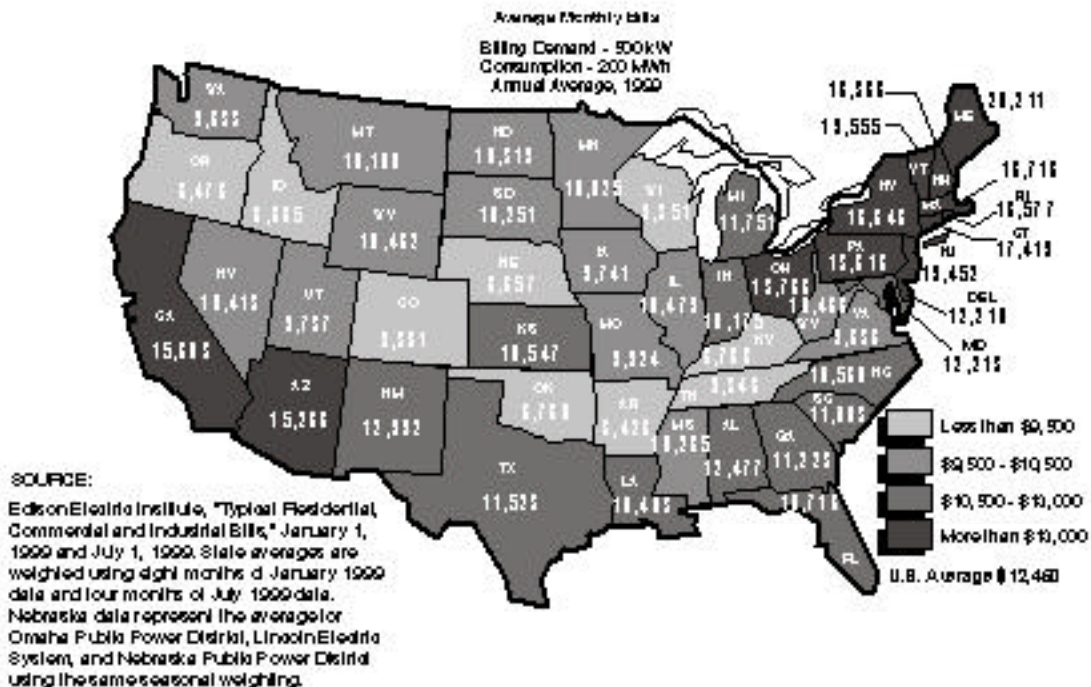
Some major electric-generating facilities in Nebraska are:

- 1,300-megawatt NPPD coal-fired Gerald Gentleman Station near Sutherland, Unit No. 1 on-line in 1979 and Unit No. 2 on-line in 1982.
- 575-megawatt OPPD coal-fired Nebraska City, Unit No. 1, on-line in 1979.
- 800-megawatt NPPD Cooper Nuclear Station near Brownville, on-line in 1974.
- 486-megawatt OPPD Fort Calhoun Nuclear Station, on-line in 1973.

Nebraska utilities also operate 12 hydroelectric plants and receive a power allotment from the Western Area Power Administration (WAPA) hydroelectric facilities on the Missouri River. The utilities operate with a reserve capacity that protects users against voltage reductions and

brownouts. Furthermore, the utilities are members of the Mid-Continent Area Power Pool (MAPP), which interconnects eight upper Midwestern states and a Canadian province with an extensive network of high voltage transmission facilities.

Figure 4
Electric Costs for Industrial Service, 1999



Natural gas in Nebraska is also attractive to industry for service, supply, and price. A gas-producing state, Nebraska is close and well-connected by pipeline to the major gas fields of the central and southern plains. The state's average cost of industrial gas is less than both the regional and national averages.

in Lincoln. Natural gas with an average value of 1,000 BTU is available for residential, commercial, and industrial customers for base and peak use on a firm basis. Interruptible service is available for customers with alternate fuel capability.

Two large natural gas companies serve Nebraska. One is Northern Natural Gas Company, an Enron subsidiary headquartered in Omaha, which serves the eastern third of the state. KN Energy, division of Kinder Morgan, based in Lakewood, Colorado, serves the western two-thirds of Nebraska. Both companies have ample natural gas storage facilities.

Labor Quality

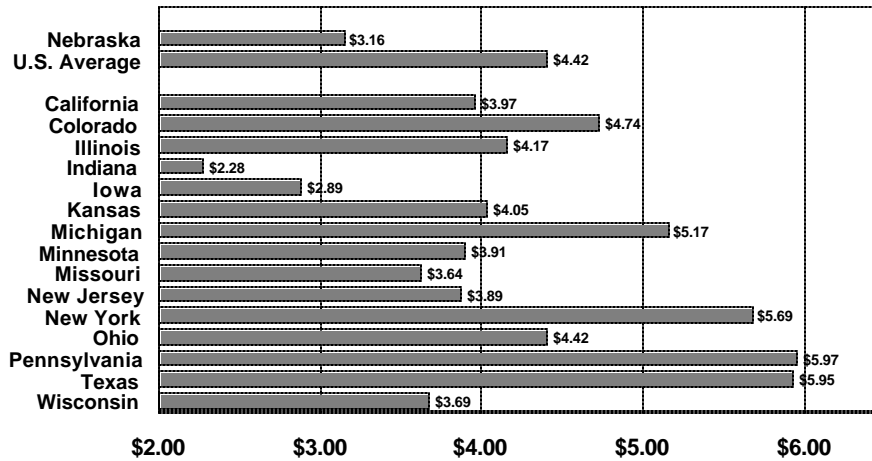
Any industry derives benefits from a productive and well-educated labor force. Nebraska's labor force has a strong work ethic and technical proficiency. The state was settled by individuals with the foresight and diligence to transform it into a world center of agricultural production. Their descendants maintain a work ethic and mechanical aptitude that carry over into the state's manufacturing sector. Contributing to Nebraska's high labor productivity are very low absenteeism and labor turnover rates. Furthermore, Nebraska employers pay among the lowest unemployment insurance and workers' compensation costs in the nation.

In the case of workers' compensation rates, Nebraska's rate of \$2.77 per \$100 of manufacturing payroll is 21.8 percent lower than the average for the other 16 alternative plant location states included in this study (Figure 5A and Table 12). Nebraska's unemployment insurance cost provides a more significant cost advantage. The state's estimated unemployment insurance cost of \$42 per worker is 77.8 percent less than the \$190 average cost for the other states included in the comparison (Figure 5B).

Nebraska's work force quality is also highly rated by the state's employers and by various national comparisons. In 1998, 87.7 percent of the state's

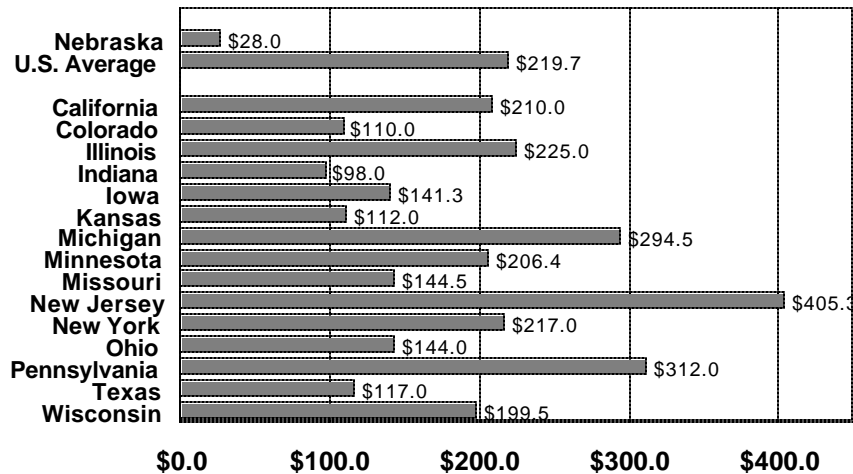
population 25 years of age and older were high school graduates, compared to 82.8 percent nationally. Nebraska's high school graduation rate averages 94 percent, ranking among the highest in the nation. One reason for the high graduation rate is the state's comparatively low student-teacher ratio — 12.7 in 1998 compared to 15.4 for the nation. Finally, Nebraska students consistently score above the U.S. average on both standardized achievement tests and college entrance exams. In 1999, Nebraska students averaged 21.7 on the ACT college entrance test, compared to 21.0 nationally.

Figure 5A
Workers' Compensation Rates,
Alternative Plant Locations



Source: See Table 12.

Figure 5B
Per Worker Unemployment Costs,
Alternative Plant Locations



Source: See Table 15.

Higher Education Resources and Research

Companies within the industrial machinery industry can be major beneficiaries of flexible, state-of-the-art education resources that help ensure a trained, technically skilled work force in Nebraska.

The industry relies heavily upon the presence of quality institutions of higher learning for research, teaching, service, and a flow of skilled workers. The University of Nebraska System, with campuses in Lincoln, Omaha, and Kearney, has the largest facilities among the state's 21 colleges and universities and offers advanced degrees in most professional fields. The University System, with a combined enrollment of more than 45,000, is the center for both basic and applied research and has a strong College of Engineering and Technology program.

Areas of engineering research and teaching programs include Agricultural Engineering, Biological Systems Engineering, Civil Engineering, Chemical Engineering, Computer and Electronic Engineering, Construction Management, Construction Systems Technology, Electrical Engineering, Engineering Mechanics, Industrial and Management Systems Engineering, Industrial Systems Technology, and Mechanical Engineering.

In addition to the engineering departments at the University, various engineering research centers have been established. They are: Center for Microelectronics and Optical Materials Research, Center Electro-Optics, Center for Communication and Information Science, Center for Infrastructure Research, Center for Non-Traditional Manufacturing Research, Center for Laser Analytical Studies of Trace Gas Dynamics, Excellence in Electronics Center of Engine Technology, and Center for Ergonomics and Safety Research. The following is a brief description of departments and centers that offer special expertise to the manufacturers of industrial machinery products.

- Industrial and Management Systems Engineering. The department focuses not only on providing sound undergraduate and graduate education but conducts research in four general

areas: manufacturing processes and systems, ergonomics, operations research, and engineering management. The long-term benefits of this focus will be improved manufacturing processes, more efficient manufacturing systems, and safer work places with reduced exposure to cumulative trauma stressors.

- Nebraska Center for Excellence in Electronics. The Center for Excellence in Electronics (NCEE) establishes an RF and Wireless Technologies testing and training capability in Nebraska. NCEE is a joint effort among the University of Nebraska - Lincoln, Lincoln Partnership for Economic Development and the Southeast Community College.

- Center for Nontraditional Manufacturing Research. This center focuses on research in the areas of electrical discharge machining, electrochemical machining, abrasive flow machining, and other unique manufacturer's processes. Modern technology has created a new era of advanced materials including composites, engineering ceramics, and super alloys that are stronger, lighter, and in many cases, harder than manufacturer's current cutting tools. This has led to the development of nontraditional processes that use thermal energy, mechanical abrasion, or chemical reactions to machine work pieces. Some of these processes include electrical discharge machining, electrochemical machining, abrasive flow machining, laser machining, and abrasive water jet machining.

- Center for Ergonomics and Safety Research. Newly created within the Industrial and Management Systems Engineering Department, the **Center for Ergonomics and Safety Research** conducts studies in the areas of cumulative trauma disorders, work place design, tool design, and cognitive engineering. Research results from this center can be of great value to new and existing manufacturers of industrial machinery products.

- Mechanical Engineering. Mechanical engineering is structured into three major areas: metallurgical engineering, thermal-fluid sciences, and systems and design engineering. The department houses the **Center for**

Microelectronic and Optical Materials Research which conducts extensive research in the general areas of electrical and optical materials with specific programs in magnetic and protective coating materials. A part of this process is the growing of diamond films through a process of mixing methane, hydrogen, and heat. These diamond films, initially used as a coating for special cutting tools for super hard materials, also have outstanding commercial potential for a variety of applications.

The department also houses the **Metallurgic Group** which conducts research with the Center for Materials Research and Analysis (Physics Department) and in interdisciplinary programs related to superconductors.

- Center for Materials Research and Analysis (CMRA). In addition to the above Engineering Research Centers, the UNL Physics Department has a Center for Materials Research and Analysis. The Center's major goal is to be a center of excellence in research, education, and service in the area of materials science and engineering. Major activities and research thrust areas are in core support for facilities and operation. Materials research for information and communication technology, molecular design of advanced materials, and industrial materials

research and analysis. Many of the faculty in CMRA are involved in technology transfer with companies internal and external to Nebraska.

In addition to the University of Nebraska System, Nebraska operates a state college system with campuses at Chadron, Peru, and Wayne. A variety of private colleges and universities are also located in Nebraska, including Creighton University in Omaha, Nebraska Wesleyan University in Lincoln, and others located throughout the state (see Figure 6A).

Another important facet of higher education in Nebraska is the statewide community college system that provides specialized training programs for new and expanding Nebraska industries. As indicated in Figure 6B, the state has six community college areas which operate campuses in 13 cities across the state. The colleges offer a full curricula of occupational courses which provide a steady flow of skilled graduates to Nebraska industries. As examples, Hastings and Milford Community College campuses offer vocational/technical training in more than 50 different one- and two-year programs. Training is accomplished through the extensive use of hands-on activities and is centered around practical application of technical knowledge gained in lecture and laboratory sessions.

Figure 6A
Location of Colleges and Universities in Nebraska

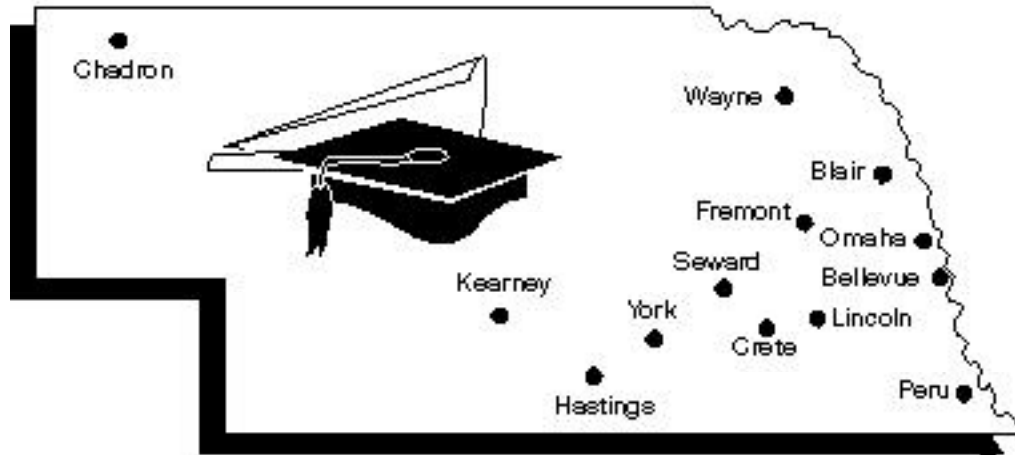
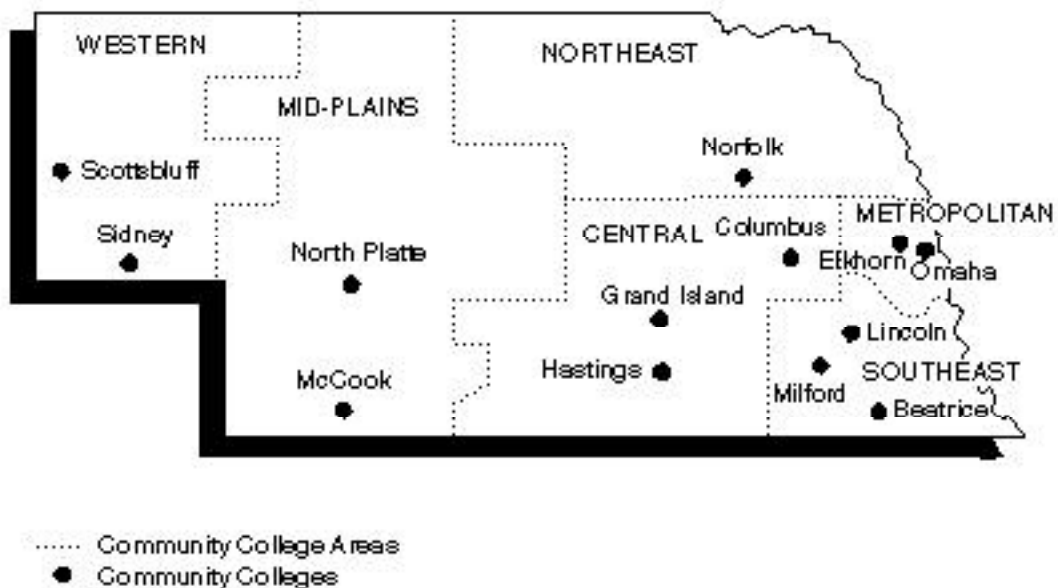


Figure 6B
Community Colleges in Nebraska



Development Assistance Programs

Building on traditional advantages, Nebraska offers a growing variety of development assistance programs. Among these programs are the following:

- University of Nebraska Engineering Extension
Engineering Extension is a service organization of the College of Engineering and Technology, University of Nebraska that advises business and industry and communities on matters pertaining to engineering and technology to help increase productivity and profitability and improve public infrastructure. The strength of Engineering Extension focuses on the ability of its staff to provide current sources of information on technologies of interest to manufacturers, individuals and public sector groups within Nebraska. Engineering Extension responds to specific requests from clients, and staff engineers call upon companies in efforts to assure that they have direct access to the information they need.

Engineering Extension also provides specialized education/training opportunities for manufacturers and draws upon the expertise of its staff, other university faculty and staff, and a variety of other sources outside the university to accomplish this means of information transfer.

- Nebraska Job Training Liaison

A cooperative arrangement among three major state agencies--the Nebraska Department of Labor, the Department of Economic Development, and the Department of Education--the Nebraska Job Training Liaison weaves all available employment training and recruitment resources into customized packages designed to meet the specific needs of firms. Services arranged through the Liaison include labor force recruitment, screening and assessment programs, training in specific skill areas for new employees, and skill development training for existing employees.

- Industrial Revenue Bonds

All Nebraska counties and municipalities as well as the Nebraska Development Finance Fund are authorized to issue industrial revenue bonds to finance land, buildings, and equipment for industrial projects. No general election is required for an issue.

- Other Financing Assistance

Supplementing traditional sources, a diversity of financing assistance is available through the Nebraska Investment Finance Authority, the Business Development Corporation of Nebraska, and local development corporations. Development finance services are also administered by the Nebraska Department of Economic Development, with staff helping assemble government financing with conventional financing to put together the best comprehensive package.

Performance-Based Tax Incentives

In 1987, the Nebraska legislature passed sweeping performance-based tax incentive programs, demonstrating the state's commitment to creating a business environment second-to-none. Those incentives have had a profound effect in stimulating business investment, expansion, and job creation. Through December 31, 1999, 473 projects totaling \$5.838 billion in investment and 43,796 jobs have been announced under the provisions of just one program — the Employment and Investment Growth Act.

Both large and small businesses receive incentives through the Employment and Investment Growth Act and the Employment Expansion and Incentive Act. The incentives include corporate income tax credits, sales and use tax refunds, and personal property tax exemptions. Businesses qualify for incentives with the addition of as few as two full-time employees and the investment of \$75,000.

In addition to the tax incentives passed in 1987, the state legislature passed the Rural Economic Opportunities Act (LB 936) in 2000 to especially help businesses in the state's small- to medium-sized counties. Businesses earn state income tax credits by adding investment and full-time equivalent employment equaling one-half of one percent of a county's labor force and by paying above average wages to those new employees. The required investment is \$100,000 times the required minimum number of new full-time employee equivalents in counties with a labor force of 3,000 or more and \$50,000 times the minimum number in other counties. In the state's 70 small- to medium-sized counties, one-half of one percent of the labor force ranges from 1 to 30 employees. New employee wages must equal 125 percent of either the average annual wage paid by all employers in the county or the state average. Those wages must also be above the

annual average wage in the multi-county region in which the new employment occurs. Businesses eligible for tax credits include manufacturing, warehousing, transportation, research and development, financial services, insurance, telecommunications, data processing, and administration. The state income tax credits earned by businesses qualifying under LB 936 equal five percent of the total compensation paid to new employees in each of seven consecutive years and ten percent of the qualifying investment. The credits can be used over a ten-year period.

One additional incentive program of note is Community Improvement Financing (CIF), which is Nebraska's version of Tax Increment Financing (TIF). TIF is a method of financing the public improvements associated with a private development project in a blighted area by using the projected increase in property tax revenue that will result from the private development.

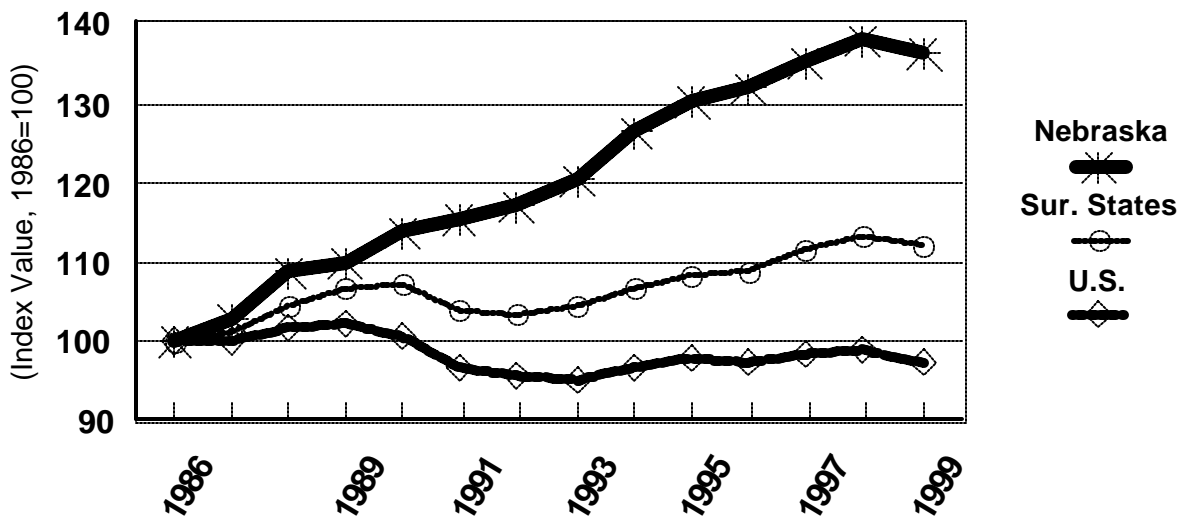
In a tax policy incentive, Nebraska determines the taxable income attributable to Nebraska operations using a single factor, or "sales only," formula. This method for determining corporate income tax allocation provides a significant advantage to multi-state unitary firms that sell products or services outside Nebraska. Nebraska also provides a capital gains exemption. State residents may elect, on a one-time basis, to subtract from their income tax liability the gain from the sale of capital stock of a corporation acquired during Nebraska-based employment with that corporation.

These incentives join a number of incentives long in place, including exemptions from property tax on business inventories, exemptions from sales tax on the equipment and energy used in manufacturing, and no state property tax. Furthermore, while having a low overall state tax burden, Nebraska has one of the most equitable and balanced state tax structures in the nation.

The combination of many factors, including Nebraska's attractive business climate, tax incentives, labor productivity, and effective job training programs as well as many other positive attributes, has resulted in an unprecedented growth in the state's manufacturing sector. Manufacturing employment in Nebraska increased 36.6 percent from 1986 to 1999, compared to a

2.7 percent decline nationally and an increase of 12.4 percent for Nebraska's neighboring states (Colorado, Iowa, Kansas, Missouri, South Dakota, and Wyoming). Obviously, companies with Nebraska plants benefit from the competitive advantages associated with doing business in Nebraska.

Figure 7
Manufacturing Employment, Nebraska, Surrounding States, and the U.S., 1986-1999 (Index, 1986=100)



Surrounding States include CO, IA, KS, MO, SD and WY.

Quality of Life

For a potential newcomer to Nebraska, the state's livability is obviously also a consideration. Nebraska ranks high in quality of life studies—and well below average in cost of living measures. The state's landscape is clean and spacious, both in urban and rural areas. Residents blend Midwestern values with Western enthusiasm for growth and change. This helps create a high degree of citizen participation in both neighborhood and community-wide activities.

largest cities as well as its small rural communities. Data presented in Table 7 indicates that, on average, the cost of living in Nebraska is 6.4 percent less than the U.S. average. Moreover, both of Nebraska's metropolitan areas (Omaha and Lincoln) are significantly less and the state's nonmetropolitan areas are, on average, 7.2 percent less. Of particular interest is the cost of housing which, in Nebraska, averages 18.1 percent less than for the U.S. as a whole. This is true for home buyers as well as those renting their homes.

The cost of living in Nebraska is consistently below the national average. This is true for the state's

Table 7

**Cost of Living in Nebraska, Compared to National Average,
Second Quarter, 2000**

	All Items Index ^(a)	Consum- ables	Transpor- tation ^(b)	Health Services	Monthly Rent ^(c)	Home Value ^(c)	Insurance	Income/ Payroll Taxes
U.S. Average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nebraska	93.6	95.9	98.9	91.2	81.9	79.6	83.1	101.7
Omaha, NE	94.6	92.8	102.3	90.1	86.2	91.0	90.8	101.7
Lincoln, NE	96.7	96.1	98.7	91.3	94.7	103.5	82.6	101.7
Nonmetro NE ^(d)	92.8	96.1	98.7	91.3	78.3	75.4	82.7	101.7

^(a) Cost of living values computed for a family of three with an annual income of \$50,000.

^(b) Transportation costs assumes ownership of two cars valued at \$14,312 which are driven a total of 20,000 miles annually.

^(c) Assumes a house of 1,613 square feet for both rental assumption and home value.

^(d) Nonmetro Nebraska data represent the average of 14 Nebraska cities outside of the Omaha and Lincoln metropolitan areas. These cities include Beatrice, Columbus, Dakota City, Fremont, Grand Island, Hastings, Kearney, McCook, Norfolk, North Platte, O'Neill, Scottsbluff, and South Sioux City, Nebraska.

Source: Index values computed from cost-of-living data obtained from Economic Research Institute (ERI), Relocation Assessor Database for the second quarter of 2000.

**II. LABOR AND ENERGY COST
ANALYSIS**

As shown in the previous discussion, Nebraska offers a wide range of locational advantages for manufacturers of industrial and other machinery and equipment. In this section of the study, labor and energy production cost factors that have geographic variability are analyzed. Such analysis permits the identification of the plant site providing the best advantage on these important input factors.

In the analysis of geographically variable labor and energy costs, the following procedures are used:

- 1) Selection of alternative plant locations for evaluation of the geographically variable labor and energy costs.
- 2) Definition of a model manufacturing plant for identifying labor and energy inputs and costs.
- 3) Evaluation of labor-related costs associated with each alternative plant location.

- 4) Evaluation of energy costs for each alternative plant location.

Alternative Plant Locations

Seventeen alternative plant locations were selected for comparison in this analysis. The plant locations essentially were in two groups of states: 1) states that currently have the largest manufacture of industrial machinery and equipment products, and 2) neighboring and nearby states to Nebraska that typically compete for industrial location projects. The first group of states includes California, Colorado, Illinois, Indiana, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Texas. The second group of states include Nebraska, Iowa, Kansas, Minnesota, Missouri, and Wisconsin. Combined, these two groups of states account for 74.4 percent of the value added by manufacture in the industrial machinery and equipment industry (see Table 8).

The Model Plant

To facilitate the analysis of the comparative labor and energy costs for the alternative states, it is useful to define a model plant for which the geographically variable costs can be quantified. The model plant is assumed to manufacture a product representative of the industrial machinery industry as a whole. To specify the relevant labor and energy costs, information was obtained from the 1997 Census of Manufactures, and the 1996 Annual Survey of Manufactures.

Table 8

**Alternative Locations for a Model Plant
for the Industrial Machinery and
Equipment Industry (NAICS 333)**

Plant Locations	Percent of Value Added by Manufacture^(a)
Nebraska	0.7
California	7.3
Colorado	0.7
Illinois	9.7
Indiana	3.8
Iowa	4.0
Kansas	1.2
Massachusetts	2.4
Michigan	7.0
Minnesota	2.8
Missouri	1.9
New Jersey	1.6
New York	6.9
Ohio	7.4
Pennsylvania	5.0
Texas	5.9
Wisconsin	6.2
Total Selected States	74.4

^(a) Percent of the 1997 U.S. total value added by manufacture for establishments in NAICS 333.

Source: U.S. Bureau of the Census, *1997 Census of Manufactures*, Geographic Area Series.

Table 9 presents industry characteristics used in developing the model plant that is assumed to employ 50 production workers. Estimated production worker hours total 100,000 annually or 2,000 hours per worker. Value added by manufacture is estimated to be \$7,287,500 and the total annual output (value of shipments) is estimated to be \$14,390,500. Energy inputs are estimated at 14,632 million BTUs, with all energy inputs supplied by electricity and natural gas.

Energy Used in the Model Plant

The assumption that the model plant is representative of the industry as a whole leads to the assumption that energy used in the plant also should be characteristic of industry use patterns. Part A of Table 10 presents data estimating energy use for the industry in 1996. The estimated energy use for the model plant was derived using the ratio of energy inputs to industry value added. It was further assumed that all energy inputs for the model plant are derived from electricity and natural gas.

Part B of Table 10 indicates the model plant, employing 50 production workers, will have annual energy inputs of 14,632 million BTUs. Electric energy inputs are estimated to be 6,746 million BTUs (1,976,615 kWhs), or 46.1 percent of the total energy inputs, while natural gas inputs are estimated at 7,886 million BTUs.

Table 9

**Characteristics of a Model Plant Manufacturing
Industrial Machinery and Equipment (NAICS 333)**

	Total Model Plant	Per Production Worker
Production Workers	50	---
Value Added [dollars] ^(a)	7,287,500	145,750
Total Output [dollars] ^(b)	14,390,500	287,810
Energy Inputs [million BTUs] ^(c)	14,632	292.7

^(a) Estimated value added applies the 1997 value added per production worker for the industrial machinery and equipment industry to the model plant (see Table 3.).

^(b) Estimated value of shipments derived by applying the 1997 value of shipments per production worker to the model plant (see Table 3).

^(c) Estimated by applying the 1996 ratio of energy inputs per production worker to the model plant (see Table 10).

Source: Calculated from data presented in Tables 3 and 10.

Table 10

**Energy Use in Establishments Manufacturing
Industrial Machinery and Equipment (NAICS 333)**

Part A

Estimated 1997 Industry Energy Inputs

	Trillion BTUs	Percent
Purchased Fuels and Electric Energy	273.0	100.0
Total Electric Energy	125.9	46.1
Purchased Fuels	147.2	53.9

Source: Electricity data from the U.S. Bureau of the Census, *Census of Manufactures, 1997*.

Natural Gas and other energy inputs estimated from Census of Manufactures' data in conjunction with data obtained from the U.S. Energy Information Administration, *Manufacturing Energy Consumption, 1991*.

Part B

Energy Inputs for the Industrial Machinery Model Plant

	Million BTUs	Percent
Total Electricity Inputs	6,746 (1,976,615 kWhs)	46.1
Natural Gas Inputs	7,886	53.9
Total Energy Inputs	14,632	100.0

Source: Calculated from data in Table 9 and Part A of this table.

Labor-Related Costs

Labor costs in the industrial machinery and equipment industry are affected by several factors: wage rates, productivity of workers, fringe benefits, and unemployment insurance and workers' compensation costs. Table 11 includes data on wage rates for the states identified as alternative plant locations.

An analysis of state wage levels indicates Nebraska's production workers have hourly wage rates significantly below the alternative plant sites. For example, 1999 hourly wage rates for Nebraska production workers (\$12.77) are 12.4 percent below the average wage rates for the other 16 states included as alternative plant locations.

Table 11

Average Hourly Earnings of Production Workers on Manufacturing Payrolls, Alternative Plant Locations

Plant Locations	Wage Rates		Percent Change
	1995	1999	1995-1999
Nebraska	\$11.19	\$12.77	14.1
California	12.55	13.95	11.2
Colorado	12.51	14.18	13.3
Illinois	12.64	14.05	11.2
Indiana	13.91	15.26	9.7
Iowa	12.73	14.20	11.5
Kansas	12.39	14.44	16.5
Massachusetts	12.79	14.24	11.3
Michigan	16.31	18.33	12.4
Minnesota	12.79	14.35	12.2
Missouri	12.17	13.93	14.5
New Jersey	13.56	15.07	11.1
New York	12.50	13.86	10.9
Ohio	14.42	16.26	12.8
Pennsylvania	12.81	14.18	10.7
Texas	11.47	12.26	6.9
Wisconsin	12.76	14.51	13.7

Source: U.S. Department of Labor, Internet WWW Site (www.bls.com).

Other associated costs contributing to the total labor-related wage bill are shown in Table 12. These costs include rates for unemployment insurance and workers' compensation.

The Nebraska costs for unemployment insurance and workers' compensation are significantly less than for the other states. In the case of

unemployment insurance contributions, the average cost per employee for the 16 alternative states is estimated at \$189.53 or 4.5 times the Nebraska cost of \$42. Insurance rates for workers' compensation average \$3.54 per \$100 of payroll for the 16 alternative states, 27.6 percent more than Nebraska's rate of \$2.77.

Table 12**Other Labor Costs, Alternative Plant Locations**

Plant Locations	Workers' Compensation Rates ^(a)	Unemployment Insurance Factors		
		Per Worker Costs ^(b)	Tax Rate	Wage Base
	(\$)	(\$)	(%)	(\$)
Nebraska	2.77	42.00	0.6	7,000
California	4.44	189.00	2.7	7,000
Colorado	4.13	110.00	1.1	10,000
Illinois	3.46	225.00	2.5	9,000
Indiana	1.99	91.00	1.3	7,000
Iowa	2.71	148.50	0.9	16,500
Kansas	2.86	128.00	1.6	8,000
Massachusetts	3.50	259.20	2.4	10,800
Michigan	4.55	256.50	2.7	9,500
Minnesota	2.85	199.10	1.1	18,100
Missouri	3.84	112.00	1.4	8,000
New Jersey	3.28	328.10	1.7	19,300
New York	4.23	229.50	2.7	8,500
Ohio ^(c)	3.50	144.00	1.6	9,000
Pennsylvania	3.65	296.00	3.7	8,000
Texas	4.69	117.00	1.3	9,000
Wisconsin	2.88	199.50	1.9	10,500

^(a) Rates for all manufacturing classifications from: Acturial & Technical Solutions, "Workers Compensation State Rankings," Manufacturing Industry Rates and Statutory Benefit Provisions, 1999 Edition, October 1999.

^(b) Unemployment Rates from: Nebraska Department of Labor, Advisory Council Report 1999, October 21, 1999.

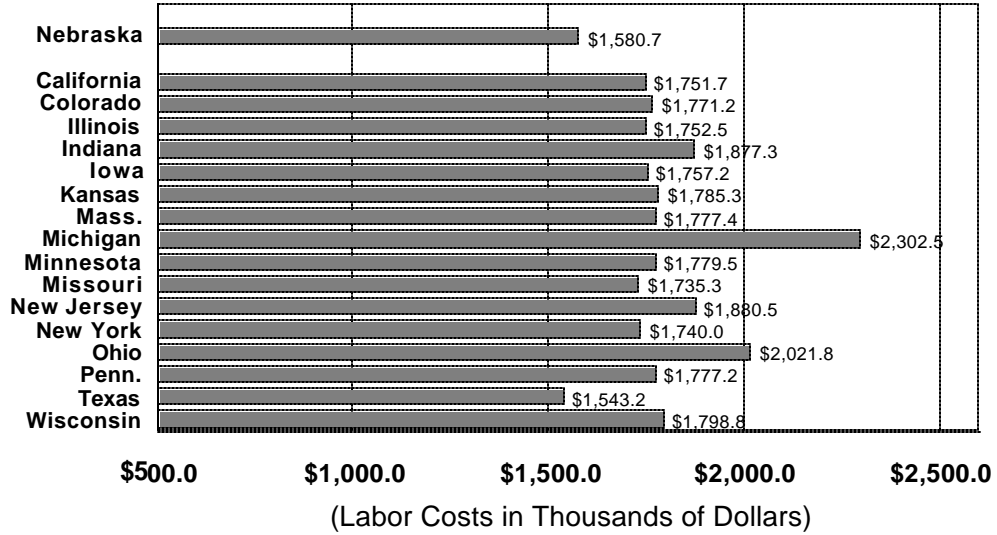
^(c) Ohio not rated so assumed to equal national average.

Estimated annual labor-related costs for operating the model plant producing industrial machinery and equipment are presented in Figure 8 and in Table 13. These labor-related costs include direct wages paid to production workers and estimates of other labor-related costs, including costs of workers' compensation and unemployment insurance, social security, and other fringe benefits.

If located in Nebraska, the model plant has a significant labor cost advantage over the alternative locations. The Nebraska labor cost advantage reaches as high as \$721,820 in annual savings when compared to Michigan. When compared to the average labor costs for the 16 alternative locations, Nebraska's annual labor cost advantage is \$234,980 or 13.0 percent lower.

Figure 8

Estimated Total Labor Costs* for a Model Plant for the Industrial Machinery Industry, Alternative Plant Locations



* Calculated labor costs include wages, workers' compensation insurance, unemployment insurance, social security, and fringe benefits.

Sources: See Table 13.

Table 13

Total Annual Labor-Related Costs for a Model Plant for the Industrial Machinery and Equipment Manufacturing Industry

Plant Location	Hourly Wage Rate	Number of Production Workers	Total Payroll	Workers' Compensation Insurance	Unemployment Insurance	Social Security^(a)	Fringe Benefits^(b)	Total Labor Costs	Cost Difference Other States (-) Nebraska	Cost Relative Other States (/) Nebraska
Nebraska	\$12.77	50	\$1,277,000	\$35,370	\$2,100	\$97,690	\$168,560	\$1,580,720	0	100.0
California	13.95	50	1,395,000	61,940	9,450	101,130	184,140	1,751,660	170,940	110.8
Colorado	14.18	50	1,418,000	58,560	5,500	101,970	187,180	1,771,210	190,490	112.1
Illinois	14.05	50	1,405,000	48,610	11,250	102,130	185,460	1,752,450	171,730	110.9
Indiana	15.26	50	1,526,000	30,370	4,550	114,980	201,430	1,877,330	296,610	118.8
Iowa	14.20	50	1,420,000	38,480	7,430	103,810	187,440	1,757,160	176,440	111.2
Kansas	14.44	50	1,444,000	41,300	6,400	102,970	190,610	1,785,280	204,560	112.9
Massachusetts	14.24	50	1,424,000	49,840	12,960	102,660	187,970	1,777,430	196,710	112.4
Michigan	18.33	50	1,833,000	83,400	12,830	131,350	241,960	2,302,540	721,820	145.7
Minnesota	14.35	50	1,435,000	40,900	9,960	104,190	189,420	1,779,470	198,750	112.6
Missouri	13.93	50	1,393,000	53,490	5,600	99,370	183,880	1,735,340	154,620	109.8
New Jersey	15.07	50	1,507,000	49,430	16,410	108,710	198,920	1,880,470	299,750	119.0
New York	13.86	50	1,386,000	58,630	11,480	100,900	182,950	1,739,960	159,240	110.1
Ohio	16.26	50	1,626,000	56,910	7,200	117,050	214,630	2,021,790	441,070	127.9
Pennsylvania	14.18	50	1,418,000	51,760	14,800	105,420	187,180	1,777,160	196,440	112.4
Texas	12.26	50	1,226,000	57,500	5,850	92,030	161,830	1,543,210	-37,510	97.6
Wisconsin	14.51	50	1,451,000	41,790	9,980	104,500	191,530	1,798,800	218,080	113.8

^(a) Employer Social Security costs are 7.65 percent of payroll (wages).

^(b) Fringe benefit costs are assumed to be 13.2 percent of payroll.

Source: Compiled from data in Tables 9, 11, and 12.

Energy Cost

The availability and cost of energy are increasingly important factors in the industrial location process. Rates for industrial electricity and natural gas for the alternative plant locations are presented in Table 14. For both energy sources, Nebraska's rates are substantially less than the alternative states. The average electric rate for a 500 kW

billing demand with monthly usage of 200,000 kWhs for the 16 alternative plant sites is \$0.0628 per kWh or 41.8 percent more than the Nebraska rate of \$0.0443.

In the case of industrial rates for natural gas, the average for the 16 other states is 14.9 percent more than the Nebraska rate of \$3.35 per million BTUs.

Table 14

Industrial Rates for Electric Energy and Natural Gas, Alternative Plant Locations

Plant Locations	Average Cost of Industrial Natural	Cost of 500 kW Billing Demand	
	Gas, 1998 ^(a) (\$/MM BTU)	With 200,000 kWh, 1999 ^(b) (\$/Monthly)	(\$/kWh)
Nebraska	3.35	8,857	0.0443
California	4.06	15,803	0.0790
Colorado	3.08	9,381	0.0469
Illinois	3.95	10,479	0.0524
Indiana	4.06	10,175	0.0509
Iowa	3.63	9,741	0.0487
Kansas	2.69	10,547	0.0527
Massachusetts	6.24	16,716	0.0836
Michigan	3.85	11,751	0.0588
Minnesota	2.88	10,025	0.0501
Missouri	4.41	9,924	0.0496
New Jersey	2.86	19,452	0.0973
New York	4.32	18,648	0.0932
Ohio	5.28	13,768	0.0688
Pennsylvania	3.78	13,616	0.0681
Texas	2.75	11,523	0.0576
Wisconsin	3.72	9,351	0.0468

Source: ^(a) Natural Gas: American Gas Association, *1999 Gas Facts* (1998 data).

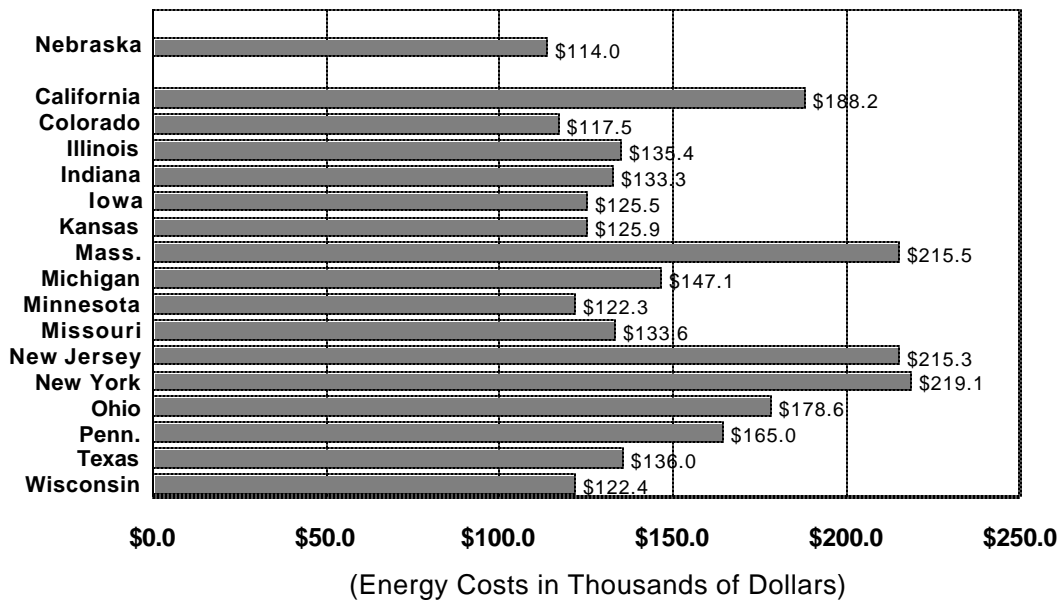
^(b) Electric: Edison Electric Institute, *Typical Residential, Commercial, and Industrial Bills*, January 1, 1999 and July 1, 1999. State average weighted using eight months of January 1999 data and four months of July 1999 data. Nebraska data represent average for Nebraska Public Power District, Omaha Public Power District, and Lincoln Electric System using the same seasonal weighting.

Figure 9 and Table 15 provide an analysis of the energy costs for the operation of the model plant. The total energy costs for the alternative locations include the cost for the assumed level of electrical energy and natural gas inputs for the operation of the plant.

Nebraska provides a significant energy cost savings compared to the alternative plant locations. When

considering the New York location, energy costs for the model plant are 92.3 percent more than the Nebraska energy costs. When compared to the average total energy costs for the 16 alternatives, Nebraska energy costs are 26.5 percent lower, translating into an average annual savings of \$41,079.

Figure 9
Estimated Energy Costs* for a Model Plant for the Industrial Machinery and Equipment Industry, Alternative Plant Locations



* Calculated energy costs include electricity and natural gas costs.

Source: See Table 13.

Table 15

**Annual Energy Costs for a Model Plant for the
Industrial Machinery and Equipment Manufacturing Industry**

Plant Locations	Electricity		Natural Gas		Total Energy Cost	Cost Difference Other States (-) Nebraska	Cost Relative Other States (/) Nebraska
	Rate(a)	Cost	Rate(b)	Cost			
Nebraska	\$0.0443	\$87,530	\$3.35	\$26,420	\$113,950	\$0	100.0
California	0.0790	156,180	4.06	32,020	188,200	74,250	165.2
Colorado	0.0469	92,720	3.08	24,800	117,520	3,570	103.1
Illinois	0.0524	103,570	3.95	31,800	135,370	21,420	118.8
Indiana	0.0509	100,560	4.06	32,690	133,250	19,300	116.9
Iowa	0.0487	96,270	3.63	29,220	125,490	11,540	110.1
Kansas	0.0527	104,240	2.69	21,660	125,900	11,950	110.5
Massachusetts	0.0836	165,210	6.24	50,240	215,450	101,500	189.1
Michigan	0.0588	116,130	3.85	31,000	147,130	33,180	129.1
Minnesota	0.0501	99,070	2.88	23,190	122,260	8,310	107.3
Missouri	0.0496	98,080	4.41	35,500	133,580	19,630	117.2
New Jersey	0.0973	192,240	2.86	23,030	215,270	101,320	188.9
New York	0.0932	184,300	4.32	34,780	219,080	105,130	192.3
Ohio	0.0688	136,070	5.28	42,510	178,580	64,630	156.7
Pennsylvania	0.0681	134,560	3.78	30,430	164,990	51,040	144.8
Texas	0.0576	113,880	2.75	22,140	136,020	22,070	119.4
Wisconsin	0.0468	92,420	3.72	29,950	122,370	8,420	107.4

^(a) Electric rate is cost per kWh using the kWh cost for 500 kW monthly demand with 200,000 kWh. The model plant is assumed to use 164,718 kWh monthly, or 1,976,615 kWh annually.

^(b) Natural gas rate is per million BTUs. The model plant is assumed to use 7,886 million BTUs annually.

Source: Calculated from data presented in Tables 10 and 14.

Labor and Energy Cost Summary

Combining the labor and energy cost findings, the results of the model plant analysis are summarized in Table 16. As the table shows, the comparative annual cost advantage associated with a Nebraska location reaches as high as \$755,000 when compared to the Michigan location. When considering the average labor and energy costs for the 16 alternative states, the cost advantage of the Nebraska location is \$276,063 annually, or 14.0 percent less than the average costs for the other 16 plant sites considered.

Conversely, the average labor and energy costs for the alternative states are 16.3 percent more than the costs associated with a Nebraska location. Inescapable from these results is the conclusion that, in terms of major labor and energy input costs, Nebraska manufacturers of industrial machinery and equipment products have a clear competitive advantage over manufacturing establishments in the industry not so fortunately located.

Table 16

**Summary of Labor and Energy Costs for a Model Plant
for the Industrial Machinery and Equipment Industry**

Plant Locations	Total Labor Cost	Total Energy Cost	Total Labor and Energy Cost	Cost Difference Other States (-) Nebraska	Cost Relative Other States (/) Nebraska
Nebraska	\$1,580,720	\$113,950	\$1,694,670	0	100.0
California	1,751,660	188,200	1,939,860	245,190	114.5
Colorado	1,771,210	117,520	1,888,730	194,060	111.5
Illinois	1,752,450	135,370	1,887,820	193,150	111.4
Indiana	1,877,330	133,250	2,010,580	315,910	118.6
Iowa	1,757,160	125,490	1,882,650	187,980	111.1
Kansas	1,785,280	125,900	1,911,180	216,510	112.8
Massachusetts	1,777,430	215,450	1,992,880	298,210	117.6
Michigan	2,302,540	147,130	2,449,670	755,000	144.6
Minnesota	1,779,470	122,260	1,901,730	207,060	112.2
Missouri	1,735,340	133,580	1,868,920	174,250	110.3
New Jersey	1,880,470	215,270	2,095,740	401,070	123.7
New York	1,739,960	219,080	1,959,040	264,370	115.6
Ohio	2,021,790	178,580	2,200,370	505,700	129.8
Pennsylvania	1,777,160	164,990	1,942,150	247,480	114.6
Texas	1,543,210	136,020	1,679,230	-15,440	99.1
Wisconsin	1,798,800	122,370	1,921,170	226,500	113.4

Source: Calculated from data presented in Tables 13 and 15.

CONCLUSIONS

This study concludes that the industrial machinery and equipment industry is desirable for Nebraska and that a Nebraska location is desirable for the industry. The locational advantages Nebraska offers appear well-suited to industrial machinery manufacturers. They cover a wide spectrum, ranging from an attractive business climate and a high quality of life at a relatively low cost. But as the study's model plant analysis demonstrates, the competitive advantages Nebraska offers in such important cost areas as labor and energy are particularly noteworthy. The state's well-educated and productive labor force is a long-standing asset, as are its very favorable electric and natural gas rates.

Essentially, the analysis presented in this study has been based on state-to-state comparisons applicable to the industrial machinery and equipment industry generally. Individual manufacturers will therefore need to further consider the locational requirements for their particular type of product and manufacturing process as well as the merits of specific sites within states. Certainly in terms of a general location situation for industrial machinery manufacturers, Nebraska has much to offer.

The organizations cooperating in the preparation of this study can also assist industrial machinery manufacturers in assessing advantages in Nebraska for a specific new location or expansion project. To obtain this assistance, write or call:

Economic Development Department
Nebraska Public Power District
P.O. Box 499
Columbus, Nebraska 68602-0499
(402) 563-5534
(800) 282-6773
Fax: (402) 563-5090
Email: econdev@nppd.com
sites.nppd.com

Business Recruitment Division
**Nebraska Department of Economic
Development**
P.O. Box 94666
Lincoln, Nebraska 68509-9466
(402) 471-3111
(800) 426-6505
Fax: (402) 471-3365
Email: dgilfillan@neded.org
www.ded.state.ne.us

Additional information concerning University of Nebraska resources and research assistance for industrial machinery manufacturers is available from:

**University of Nebraska Engineering
Extension**
W 191 Nebraska Hall
P.O. Box 880535
Lincoln, Nebraska 68588-0535
(402) 472-5600
Fax: (402) 472-0015
Email: tspilker@unlinfo.unl.edu

APPENDIX A

NEBRASKA EMPLOYMENT AND INVESTMENT GROWTH ACT (LB775) ESTIMATED BENEFIT FOR A MANUFACTURER OF INDUSTRIAL MACHINERY AND EQUIPMENT

1. ASSUMPTIONS

(a) Nebraska Sales Tax Rate:					5.0 %
(b) Local Sales Tax Rate (if any):					0.0 %
(c) List the Number of New FTE Jobs Created in Years 1 - 7 Below:					
(d) Annual Cost of Living Increase for Jobs Listed Below:					4.0 %
		Cumulative New FTE's	Average Hourly Rate	Estimated Annual Salary Per FTE	Estimated Annual Payroll For FTE's Created
YEAR 1		50	\$10.53	\$21,902	\$1,095,120
YEAR 2 *		50	\$10.95	\$22,776	1,138,800
YEAR 3 *		50	\$11.39	\$23,691	1,184,560
YEAR 4 *		50	\$11.85	\$24,648	1,232,400
YEAR 5 *		50	\$12.32	\$25,626	1,281,280
YEAR 6 *		50	\$12.81	\$26,645	1,332,240
YEAR 7 *		50	\$13.32	\$27,706	1,385,280
				Total	\$8,649,680
	* (Note: New FTE number should include the previous year total)				
(e) Contracted Building Price/Capital Lease (Excluding Land):					\$1,500,000
(f) Furniture, Fixtures & Equipment:					\$4,450,000

2. ESTIMATED TOTAL NEBRASKA SALES AND USE TAX REFUNDS

	Formula: 50% of Contracted Building Price/Capital Lease x State & Local Sales Tax Rate (Excludes Labor)	=	\$37,500
	Formula: Furniture, Fixtures & Equipment Costs x State & Local Sales Tax Rate	=	\$222,500
	Estimated Total Sales & Use Tax Refund Estimate	=	\$260,000

3. TAX CREDITS

Investment Tax Credits			
	Formula: 10% of Contracted Building Price/Capital Lease		\$150,000
	Formula: 10% of Furniture, Fixtures & Equipment		\$445,000
Job Creation Credits			
	Formula: 5% of Total Annual Payroll over Years 1 - 7 Above (Applies to Nebraska residents only)	=	\$432,484
	Estimated Total Tax Credits	=	\$1,027,484

TOTAL TAX REFUNDS, CREDITS & EXEMPTIONS AVAILABLE UNDER THE ABOVE ASSUMPTIONS	\$1,287,484
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APPENDIX B

NEBRASKA MANUFACTURERS OF INDUSTRIAL MACHINERY AND EQUIPMENT

The industry listing is derived from the 2000-2001 Nebraska Directory of Manufacturers. Firms are listed alphabetically under each six-digit North American Industry Classification System Code (NAICS) applicable to them. A description of the product manufactured is shown, along with the name and address of the company. The Employment Code listed below is also shown in the listing indicating the number of persons employed in each establishment.

Employment Code:

A	Under 10
B	10 to 24
C	25 to 49
D	50 to 99
E	100 to 199
F	200 to 499
G	500 to 999
H	1,000 to 2,499
I	2,500 and Over

*Export company

333110 AGRICULTURAL IMPLEMENT MANUFACTURING**A & W MANUFACTURING INC** A

Keith Weyer - Owner 402-645-3749
506 S 9th Street Wymore, NE 68466
333111 Hog equipment

A J SHEET METAL INC C

Todd Bissell - Pres 308-532-1500
PO Box 888 North Platte, NE 69103-0888
333111 Farm machinery components

ACCESSORY SALES INC * B

Brian Wilson - Pres 308-235-4685
PO Box 160 Kimball, NE 69145-0160
333111 Hay handling equipment

AGRI-PRODUCTS INC * B

Don Freeman - Pres 402-362-5500
PO Box 542 York, NE 68467-0542
333111 Soil mulcher, grain handling equipment, fertilizer applicators

AGROSERVICE INC A

R W Starostka - Owner 308-773-2211
PO Box 336 Silver Creek, NE 68663-0336
333111 Fertilizer applicators & sprayers

ALLMAND BROS INC * E

Steve Allmand - Pres 308-995-4495
PO Box 888 Holdrege, NE 68949-0888
333111 Post pullers, excavating equipment, backhoes

AMERICAN MANUFACTURING INC * A

Ray Gubbels - Pres 402-748-3625
PO Box 399 Osmond, NE 68765-0399
333111 Hog equipment

APACHE MANUFACTURING * D

Doug Stevens - Mgr 402-371-1400
PO Box 1247 Norfolk, NE 68702-1247
333111 Haying & cattle feeding equipment, roll-off waste containers

APOLLO STEEL COMPANY B

John Judds - V Pres 402-466-8587
7200 Amanda Road Lincoln, NE 68507
333111 Components for agricultural equipment, stills

ARKFELD MANUFACTURING INC * B

Robert Arkfeld - Pres 402-371-9430
PO Box 54 Norfolk, NE 68702-0054
333111 Insulated pump houses, automatic livestock waterers & scales

AUBURN CONSOLIDATED INDUSTRIES INC * E

Jim Somers - V Pres 402-274-4911
PO Box 350 Auburn, NE 68305-0350
333112 Grounds & lawn maintenance equipment

AUTOMATED HARVESTING SYSTEMS INC A

LaDene Rutt - Mgr 308-874-2982
2234 Road 181 Chappell, NE 69129
333111 Mechanical pepper harvester

B & B MANUFACTURING A

Bud Nitzsche - Owner 402-529-6169
RR 2 - Box 237 Wisner, NE 68791
333111 Self-propelled sprayer for agriculture

B & B TECHNOLOGIES A

Bill Japp - Owner 402-374-2575
1016 S 13th Street Tekamah, NE 68061
333111 Agricultural & turf spraying equipment

BAASCH & SONS INC * B

Gerald Kluthe - Pres 308-485-4661
PO Box 427 Cairo, NE 68824-0427
333111 Livestock chutes & panels, grain cleaners & scalpels, pits

BAASCH AUGER FLIGHTING INC * B

John Baasch - Owner 308-382-9071
114 N Custer Avenue Grand Island, NE 68803
333111 Augers, replacement flighting, component parts

BAKER HYDRA-FORK INC * A

Randy Baker - Owner 402-887-4146
RR 2 - Box 60 Neligh, NE 68756
333111 Hay feeding equipment, irrigation equipment

BAMESBERGER WELDING A

Roger Bamesberger - Pres 402-725-3434
PO Box 8 Hampton, NE 68843-0008
333111 Combine bin extensions

BEHLEN MFG. CO. * G

A F Raimondo - CEO 402-564-3111
PO Box 569 Columbus, NE 68602-0569
333111 Live stock equipment for cattle, hogs, & horses

BERGGREN MACHINE SHOP A

Gary Berggren - Owner 308-743-2323
PO Box 8 Axtell, NE 68924-0008
333111 Irrigation pumps

BESLER INDUSTRIES INC * B

Herbert Besler - Pres 308-697-4698
PO Box B Cambridge, NE 69022
333111 Round bale loader for pickups, stalk choppers

BIG JOHN MANUFACTURING INC * B

James Fritz - Owner 402-748-3860
PO Box 456 Osmond, NE 68765-0456
333111 Ag sprayers, fertilizer equipment, livestock handling equipment

BLAZER MANUFACTURING INC * C

Gordon Blaser - Mgr 402-564-2262
PO Box 266 Columbus, NE 68601-0266
333111 Agricultural irrigation equipment

BLUE VALLEY SALES & SERVICE * A

Bill Rudy - Owner 402-737-3369
206 South Hwy 14 Aurora, NE 68818
333111 Planting attachments for ridge till, tractor blades

BOWMAN MICRO-DOSE INC * A

Tom Bowman - Pres 402-721-7604
4573 Paden Road Fremont, NE 68025
333111 Automatic livestock insecticide applicator

BRADSON INDUSTRIES * C

Jim Bradley - Pres 402-463-1065
4170 North Gunpowder Circle Hastings, NE 68901
333111 High pressure sprayers

BREHMER MANUFACTURING INC * B

Joey Brehmer - Pres 402-687-2655
PO Box 527 Lyons, NE 68038-0527
333111 Hog equipment, folding IH & John Deere planters

BROTHERS EQUIPMENT INC C

Jim Ryan - Pres 402-947-2831
1002 1st Street Friend, NE 68359
333111 Wagons, tandem axle trailers

BROWNIE MANUFACTURING INC * D

Wes Schneider - Pres 402-786-2715
PO Box 446 Waverly, NE 68462-0446
333111 Grain storage accessories

BROYHILL INC * C

Craig Broyhill - Pres 402-987-3412
PO Box 475 Dakota City, NE 68731-0475
333111 Tank heaters, refuse trucks, compactors, dump boxes

CATERPILLAR CLAAS AMERICA INC * D

Theo Freye - Gen Mgr 402-861-1002
8951 South 126th Street LaVista, NE 68138
333111 Agricultural combines

CHIEF INDUSTRIES - AG DIVISION * E

Craig Poolman - Pres 308-237-3186
PO Box 848 Kearney, NE 68848-0848
333111 Centrifugal & axial fans, gas & electric heaters, aeration

CHIEF INDUSTRIES INC * H

Robert Eihusen - Pres 308-382-8820
PO Box 2078 Grand Island, NE 68802-2078
333111 Steel grain bins, buildings, RV's

CLARKSON MANUFACTURING..... A
Kerry Clarkson - Owner 402-586-2567
PO Box 213 Wausa, NE 68786-0213
333111 Farm gates, pick-up racks, transports, big bale movers

CLASSEN MANUFACTURING INC * C
Larry Classen - Pres 402-371-2294
PO Box 172 Norfolk, NE 68702-0172
333112 Lawn aerators, sod cutters, power rakes, turf, seeders

CR MANUFACTURING INC A
Chuck Roehrich - Mgr 308-381-6662
3724 Westgate Road Grand Island, NE 68803-6022
333111 Agricultural equipment

CREIGHTON POST & PIPE SUPPLY INC B
Richard Stubben - Mgr 402-358-3400
RR 2 - Box 137 Creighton, NE 68729
333111 Livestock gates & panels

D/W MACHINE & MANUFACTURING..... A
Duane Hronek - Pres 402-376-3279
PO Box 37 Valentine, NE 69201-0037
333111 Bale feeder parts

DANIELS MANUFACTURING INC * B
Duane Daniels - Pres 402-387-1891
PO Box 67 Ainsworth, NE 69210-0067
333111 Portable corrals, livestock gates, working alleys

DELUX MANUFACTURING INC * B
Eric Michel - Pres 308-237-2274
PO Box 1027 Kearney, NE 68847-1027
333111 Grain dryers

DEMPSTER INDUSTRIES INC * D
David Suey - Pres 402-223-4026
PO Box 848 Beatrice, NE 68310-0848
333111 Fertilizer applicators, windmills, submersible pumps, cylinders

DODGE LIVESTOCK EQUIPMENT INC * A
Tom Bowman - Pres 402-721-7604
4573 Paden Road Fremont, NE 68025
333111 Hydraulic chutes for livestock working facilities

DODGE MANUFACTURING INC A
Lumir Kampschneider - Pres 402-693-2221
409 Spruce Street Dodge, NE 68633-3540
333111 Livestock corral panels & gates, pickup racks, augers

DUO LIFT MANUFACTURING INC * C
Jim Hellbusch - Pres 402-564-8023
2810 38th Street Columbus, NE 68601
333111 Trailers & parts for irrigation & farm related uses

EASY CHEMICAL & MANUFACTURING INC A
Ardene Henning - Mgr 402-643-4950
2301 Old Mill Road Seward, NE 68434-8023
333112 Yard & garden equipment

EASY CHEMICAL & MANUFACTURING INC A
Ardene Henning - Mgr 402-643-4950
2301 Old Mill Road Seward, NE 68434-8023
333111 Cattle oilers, feeder panels, cattle handling equipment

ENCORE MANUFACTURING INC * C
Dick Tegmeier - Pres 402-228-4255
PO Box 888 Beatrice, NE 68310-0888
333112 Lawn & turf equipment

EVENTEMP SOUTH DIVISION * B
Jeff Harris - Gen Mgr 402-729-2591
PO Box 192 Fairbury, NE 68352
333112 Lawnmower decks & related parts

EXMARK MANUFACTURING INC * F
H John Smith - Pres 402-223-6300
PO Box 808 Beatrice, NE 68310-0808
333112 Commercial lawn mowers

FEHRMAN INDUSTRIES INC * A
Rick Fehrman - Pres 402-334-3434
PO Box 45573 Omaha, NE 68145-0573
333111 Field & lawnsprayers; air blast sprayers, misters; trailer

FLEISCHER MANUFACTURING INC * E
David Vollbracht - Pres 402-564-3244
PO Box 848 Columbus, NE 68602-0848
333111 Agricultural no-till planters, cultivators, earth moving scrapers

GEIST MANUFACTURING INC * C
Don Young - Pres 402-474-3400
PO Box 83088 Lincoln, NE 68501-3088
333111 Irrigation equipment

GNUSE MANUFACTURING INC A
Verdell Gnuse - Owner 402-478-4433
RR 1 - Box 49 Arlington, NE 68002
333111 Rear mounted tractor loaders & fork lifts, wagon boxes

GOERTZEN MANUFACTURING A
Fred Goertzen - Owner 402-694-3089
1508 W 7th Road Aurora, NE 68818-3906
333111 Cultivator sweep

GOOSSEN INDUSTRIES INC * D
Louis Goossen - Pres 402-228-4226
PO Box 705 Beatrice, NE 68310-0705
333112 Lawn care equipment: chipper/shredders, debris blower

H R MANUFACTURING INC * A
Randy Rink - V Pres 402-385-2114
RR 1 - Box 71 Pender, NE 68047
333111 Agricultural equipment

HARV'S FARM SUPPLY * B
Bradley Bish - Pres 402-849-2674
508 South D Road Giltner, NE 68841
333111 Bin extensions, combine, rowhead, & cornhead adapters

HASTINGS EQUITY GRAIN BIN MFG INC C
William Langford - Pres 402-462-2189
PO Box 1007 Hastings, NE 68902-1107
333111 Stock tanks, livestock feeders

HASTINGS IRRIGATION COMPANY * E
Gale Beirow - V Pres 402-463-6633
PO Box 728 Hastings, NE 68901-0728
333111 Irrigation equipment & pipe

HAWKINS MANUFACTURING INC A
Timothy Hock - Pres 308-995-4446
2120 East 4th Avenue Holdrege, NE 68949
333111 Row crop ditcher, tool bars, sweep cultivator, stalk cutter

HEARTLAND PRODUCTS COMPANY..... B
Joseph Fehringer - Pres 402-562-5959
Route 2 - Box 124 Columbus, NE 68601
333111 Hog confinement equipment

HENDERSON METAL PRODUCTS INC A
Earl & Vern Ediger - Owners 402-723-4497
PO Box 135 Henderson, NE 68371-0135
333111 Trailers for irrigation motors, hydraulic derricks

HITECH INC A
Woody Giddings Sr - Owner 308-468-5580
6335 Lowell Road Gibbon, NE 68840
333111 Grain cleaning equipment

HOSKINS MANUFACTURING INC * B
Richard Doffin - Mgr 402-565-4420
PO Box 101 Hoskins, NE 68740-0101
333111 Livestock waterers, three-point utility & livestock carriers

HUBERT INDUSTRIES A
John Hubert - Owner 308-345-4534
110 S Federal Avenue McCook, NE 69001
333111 Irrigation gates

HUTT ENTERPRISES INC A
Dennis Hutt - Pres 308-352-4888
Route 1 - Box 58 Grant, NE 69140
333111 Grain handling equipment, hoppers, steel feed bunks

INDUSTRIAL MACHINE SPECIALTIES D
Nick Cusick - Pres 402-474-6603
603 L Street Lincoln, NE 68508
333112 Lawn aeration equipment

IRRIGATION SPECIALTIES MFG INC * C
 Martha Palmer - Owner 308-436-5123
 PO Box 1306 Scottsbluff, NE 69361-1306
 333111 Sprinkler irrigation equipment, sprayers

KELLY RYAN EQUIPMENT COMPANY * D
 James Ryan - Pres 402-426-2151
 PO Box 488 Blair, NE 68008-0488
 333111 Silage bagger, mixer wagon, spreader, elevators, belt conveyors

KERRCO INC B
 Don Kerr - Pres 402-462-2173
 PO Box 368 Hastings, NE 68902-0368
 333111 Agricultural & industrial plastic sprayer & storage tanks

KOSCH INC A
 Gordon Kosch - Mgr 402-564-7161
 3439 East 23rd Street Columbus, NE 68601-3442
 333111 Farm tractor hay mowers, hay bale loaders—field type

KRAMER MANUFACTURING INC A
 Donald Gokie - Owner 402-925-5347
 PO Box 396 Atkinson, NE 68713-0396
 333111 Tractor stack movers, haying equipment, haybale processor

KRAMPER ENTERPRISES * A
 Vincent Kramper - Owner 402-987-3560
 498 190th Street Dakota City, NE 68731
 333111 Electronic agricultural equipment, weed topper for soybean

KROY MIDWEST * B
 Dave Le Duc - Mgr 402-723-5374
 PO Box 309 York, NE 68467
 333111 Irrigation pipe, gates & fittings, PVC pipe

KZCO INC * B
 Keith Ziegenbein - Pres 402-944-2767
 770 Country Road A Ashland, NE 68003-1166
 333111 Hydraulic & electric shut-off valve for NH3 & sprayers

L-H MANUFACTURING INC B
 Larry Hagemeyer - Owner 402-463-9467
 1605 West I Street Hastings, NE 68901-6720
 333111 Feeders, wagons, hay panels, irrigation equipment

LINCOLN CREEK MANUFACTURING INC * A
 Jay Groelz & Greg Schuster - Owners 402-886-2483
 230 West Hwy 34 Phillips, NE 68865
 333111 Guidance systems for agricultural equipment

LINDQUIST INC * A
 Jim Lindquist - Pres 402-849-2264
 PO Box 37 Giltner, NE 68841-0037
 333111 Harvesting equipment adapters, tool bars, cultivator access

LINDSAY MANUFACTURING COMPANY * G
 Gary Parker - Pres 402-428-2131
 PO Box 156 Lindsay, NE 68644-0156
 333111 Center pivot irrigation systems

M & M MANUFACTURING INC A
 Milford Hoaglen - Pres 308-352-4866
 PO Box 652 Grant, NE 69140-0652
 333111 Agricultural equipment, drill transports, field hitch system

MEAD INDUSTRIES LLC A
 Norman Mead - Owner 308-583-2875
 PO Box 402 Wood River, NE 68883-0402
 333111 Tool bars & spray booms, cult. shields, mud lugs, machining

METAL PRODUCTS COMPANY A
 Wayne Lembke - Owner 308-432-5301
 211 W 2nd Street Chadron, NE 69337
 333111 Combine header attachments using sheet metal

MFS/YORK - STORMOR * E
 Don Anderson - Pres 308-384-9320
 PO Box 2105 Grand Island, NE 68801-2105
 333111 Grain auguring, grain drying & material handling equipment

MID-PLAINS INDUSTRY & SUPPLY * A
 Kent Sitorius - Owner 308-537-3204
 1604 Avenue A Gothenburg, NE 69138
 333111 Farm equipment (gates, panels, seeders, spreaders)

MIDWEST SCREEN PRINT A
 Connie Bible - Pres 308-534-7012
 PO Box 866 North Platte, NE 69103-0866
 333111 Electronic rechargeable livestock prods

MINDEN MACHINE SHOP INC B
 Larry Lempkn - Pres 308-832-0220
 PO Box 356 Minden, NE 68959-0356
 333111 Farm equipment manufacturing

MINUTE MAN INDUSTRIES INC A
 Kenneth Butler - Pres 308-856-4820
 PO Box 414 Elm Creek, NE 68836-0414
 333111 Livestock equipment, grain cleaners, scalpers, screeners

MORAN MACHINE & REPAIR INC A
 Bill Moran - Owner 402-678-2231
 PO Box 378 Saint Edward, NE 68660-0378
 333111 Hog equipment, hampton parts for feed wagons & spreaders

NATIONAL C MANUFACTURING INC B
 Bob Chaney - Pres 402-385-3151
 PO Box 607 Pender, NE 68047-0607
 333111 Stock watering tanks

NATIONAL MANUFACTURING INC * A
 Roland Temme - Pres 402-475-3400
 507 J Street Lincoln, NE 68508-2935
 333112 Walking lawn sprinklers

NEBRASKA IRRIGATION INC * B
 Roger Bettenhausen - Pres 402-564-1514
 PO Box 1023 Columbus, NE 68601-1023
 333111 Irrigation parts, center pivot parts & irrigation supplies

NECO * D
 Stephen Campbell - Mgr 402-453-6912
 PO Box 12277 Omaha, NE 68112
 333111 Grain dryers, storage, handling & cleaning systems for grain

NEECO INC A
 Cliff Schroeder - V Pres 402-563-3512
 PO Box 1186 Columbus, NE 68601-1186
 333111 Crop drying aeration fans & burners, farm equipment

NEW HOLLAND INC * G
 Steve Lee - Mgr 308-389-5702
 PO Box 4902 Grand Island, NE 68801-4902
 333111 Combines, combine grain heads & corn heads, hay windrowers

NEW TEK MANUFACTURING INC A
 Warren Bishop - Mgr 308-534-0937
 PO Box 1068 North Platte, NE 69103-1068
 333111 Agriculture cultivator control & fertilizer equipment

NORTHERN PUMP & IRRIGATION INC * B
 Randy Ratzlaff - Gen Mgr 402-723-4501
 PO Box 576 Henderson, NE 68371-0576
 333111 Aluminum & steel irrigation fittings, valves & equipment

OLSON INC * B
 Kevin Meusch - Mgr 402-925-2881
 PO Box 520 Atkinson, NE 68713-0520
 333111 Center pivot irrigation & agricultural equipment, grain carts

OLSON INDUSTRIES INC * D
 Ted Olson Jr - Pres 402-925-5090
 PO Box 880 Atkinson, NE 68713-0880
 333111 Irrigation equipment

ORTHMAN MANUFACTURING INC * E
 William Orthman - Pres 308-324-4654
 PO Box B Lexington, NE 68850
 333111 Farm implement guidance systems, 3-point hitches

OSWALD MANUFACTURING INC * A
 Bob Oswald - Pres 402-627-7965
 PO Box 404 Shickley, NE 68436-0404
 333111 Hog feeders (confinement & outdoor), pond aerators

P-K MANUFACTURING CORPORATION B
 Thomas Schropp - Pres 402-451-7576
 PO Box 12152 Omaha, NE 68152-0152
 333111 Field spraying & fertilizer application equipment

PARASAL MANUFACTURING..... A
Duane Witte - Owner 402-376-3554
PO Box 74 Valentine, NE 69201-0074
333111 Cattle handling equipment

PEARSON LIVESTOCK EQUIPMENT * B
Jack Johnston - Owner 308-645-2231
PO Box 268 Thedford, NE 69166-0268
333111 Cattle & bison working chutes, alleys, & crowding tabs

PECK MANUFACTURING INC B
Steven Peck - Pres 402-456-7314
PO Box 260 Herman, NE 68029-0260
333111 Portable grain augers & accessories

PETERSEN & SON INC * A
Loyal Petersen - Pres 402-748-3388
PO Box 207 Osmond, NE 68765-0207
333111 Rain stop shut-off & safety stops for irrigation systems

PHOENIX CASTING & MACHINING INC * B
Myron Chapel - Mgr 402-751-2135
PO Box 308 Juniata, NE 68955-0308
333111 Aluminum irrigation supplies, sand & gravel pumps

PIERCE MANUFACTURING INC A
Gerald Dux - Pres 402-329-4924
PO Box 11 Pierce, NE 68767-0011
333111 Sprayers, inoculant applicators, poultry processing equipment

PINKELMAN MANUFACTURING INC A
Gary Pinkelman - Pres 402-254-6529
PO Box 428 Hartington, NE 68739-0428
333111 Livestock buildings, ventilation systems, grain bins

POWELL MANUFACTURING INC B
Doug Powell - Pres 402-766-4155
PO Box 132 Odell, NE 68415-0132
333111 Farrowing crates, pig cribs, gestation stalls, gates

PRECISION FABRICATORS & FOUNDRY * B
Richard LeBron - Pres 402-571-4848
6114 Country Club Road Omaha, NE 68152
333112 Utility carts

PRECISION MACHINE INC * B
John Buse - Pres 402-467-5528
2933 N 36th Street Lincoln, NE 68504-2498
333111 Seed handling equipment, soil samplers

PRECISION TOOL & MACHINE INC A
Terry Miller - Pres 402-643-2499
2881 McKelvie Road Seward, NE 68434-9410
333111 Filter systems for grain vacuum equipment, waste grinders

PRESTIGE MANUFACTURING INC * A
Daniel Kinnison - Pres 308-235-3700
105 S Webster Street Kimball, NE 69145
333111 Tractor sun shields, farm & irrigation equipment, ditches

QUALITY CONFINEMENT EQUIPMENT INC * C
Lonnie Kitt - Owner 402-352-3167
PO Box 581 Schuyler, NE 68661-0581
333111 Fiberglass & plastic exhaust fans & louvers, heaters

QUICK CHOP INC A
Gary Anderson - Pres 308-537-3868
40930 Road 771 Gothenburg, NE 69138-4011
333111 Stalk cutter, cultivator main frame

RANSOMES AMERICA CORPORATION * G
Jeff Dailey - V Pres 402-475-9581
PO Box 82409 Lincoln, NE 68501-2409
333112 Turf equipment

REGION V INDUSTRIES - NEBR CITY..... D
Leon Schiermeyer - Dir 402-873-3306
PO Box 614 Nebraska City, NE 68410-0614
333111 Ag chemical applicators (plastic)

REINKE MANUFACTURING INC * F
Ronald Scharadt - Mgr 402-365-7251
PO Box 566 Deshler, NE 68340-0566
333111 Center pivot irrigation systems & trailers

RELIABLE WELDING INC..... A
George Murdock - Owner 402-684-2882
PO Box 627 Bassett, NE 68714-0627
333111 Metal feed bunks, herbicide sprayers

ROWSE HYDRAULIC RAKES INC * C
Ron Rowse - Pres 308-348-2276
HC 80 - Box 42 Burwell, NE 68823
333111 Hydraulic rakes, sickle bar mowers, dirt scrapers

S & S MANUFACTURING INC * B
Steve Wall - Owner 402-494-4498
215 W 26th Street South Sioux City, NE 68776
333111 Jacks, calf-pullers, welding clamps, engine dollies

S & W WELDING INC * A
Hal Wagner - Mgr 402-372-5510
203 N Mill Street West Point, NE 68788
333111 Livestock & grain handling equipment, utility trailers

SAND LIVESTOCK SYSTEMS INC * F
Larry Sitzman - V Pres 402-564-1211
PO Box 948 Columbus, NE 68602-0948
333111 Hog confinements & swine handling equipment

SARGENT PIPE INC * C
Loren Taylor - Gen Mgr 308-872-6477
PO Box 627 Broken Bow, NE 68822-0627
333111 Turbine pumps for irrigation systems, well casings

SCHAFFERT MANUFACTURING INC * A
Paul Schaffert - Owner 308-364-2607
RR 1 - Box 157 Indianola, NE 69034
333111 Seed & planter attachments

SCHERBARTH INC B
Ted Scherbarth - Pres 402-729-6184
3036 Industrial Avenue Fairbury, NE 68352-4077
333111 Grain & feed storage & handling equipment

SCHUMACHER IRRIGATION INC * B
Tim Schumacher - Pres 402-246-3685
PO Box 289 Platte Center, NE 68653-0289
333111 Irrigation pipe, epoxy coated steel & aluminum fittings

SCOTT MANUFACTURERS A
J T Scott - Owner 308-282-0532
RR 1 - Box 148 Gordon, NE 69343
333111 Irrigation equipment, livestock handling equipment

SNYDER INDUSTRIES * E
Hal Spurrier - Pres 402-467-5221
PO Box 4583 Lincoln, NE 68504-4583
333111 Industrial/agricultural bulk fiberglass sprayer & transport tanks

SS MANUFACTURING INC * B
John Niewohner - V Pres 402-687-2042
PO Box 555 Lyons, NE 68038-0555
333111 Stainless steel livestock feeders, metal fabrication

STALKER MACHINE INC A
Paul Stalker - Owner 308-346-4637
PO Box 400 Burwell, NE 68823-0400
333111 Hay moving equipment

STROBEL INDUSTRIES INC C
Dwight Strobel - Pres 308-548-2254
PO Box 255 Clarks, NE 68628-0255
333111 Hay wagons, front-end loaders, dirt scrapers, stalk cutter

SULLIVAN EQUIPMENT INC A
John Sullivan - Pres 308-387-4491
RR 1 - Box 41 Wallace, NE 69169
333111 Liquid fertilizer tanks & equipment

SUNCO SYSTEMS INC * A
Lee Nikkel & Gene Schmidt - Owners 308-326-4400
RR 1 - Box 117 Madrid, NE 69150
333111 Cultivator guidance system, fertilizer equipment

T-L IRRIGATION COMPANY * F
Leroy Thom - Pres 402-462-4128
PO Box 1047 Hastings, NE 68902-1047
333111 Center Pivot & Linear Move Irrigation Systems

THURSTON MANUFACTURING * D
 Layton Jensen - Pres 402-385-3041
 PO Box 218 Thurston, NE 68062-0218
 333111 Fertilizer equipment, till equipment, implement jacks

TOMSICEK MANUFACTURING INC A
 Marvin Tomsicek - Owner 402-623-4395
 PO Box 67 Ithaca, NE 68033-0067
 333111 Livestock equipment

TOP FLITE INC * B
 Lloyd Larson - Pres 402-694-6536
 PO Box 249 Aurora, NE 68818-0249
 333111 Auger flighting

TRACY SHEET METAL PRODUCTS INC A
 Bruce Tracy - Owner 402-362-4950
 PO Box 8 York, NE 68467-0008
 333111 Agricultural equipment, accessories for grain bins

TRIAD FASTENER LLP * D
 Al Caldwell - Gen Mgr 308-384-1780
 PO Box 188 Alda, NE 68810-0188
 333111 Irrigation gates, irrigation gaskets

TRIAD PRODUCTS COMPANY * B
 Wayne Venter - Mgr 402-462-2181
 1801 West B Street Hastings, NE 68901
 333111 ASAE certified slow-moving vehicle signs & emblems

URBAN ENTERPRISES A
 Ray Urban - Owner 402-747-2019
 PO Box 361 Osceola, NE 68651-0361
 333111 Attachments for combines, repair work

VALENTINE MACHINE & WELDING WORKS A
 Roger Quick - Owner 402-376-3722
 110 S Hall Street Valentine, NE 69201
 333111 Agricultural equipment & parts, hydraulic forks, flatbeds

VALLEY ENGINEERING INC * A
 Bryan Hayes - Pres 308-425-6575
 305 15th Avenue Franklin, NE 68939
 333111 Hydraulic post hole digger, toolboxes, lubrication equipment

VALMONT INDUSTRIES - MCCOOK * D
 Doug Kochenderfer - Mgr 308-345-2223
 75 West Hwy 83 McCook, NE 69001
 333111 Irrigation equipment & components

VALMONT INDUSTRIES INC * H
 Thomas Spears - Pres 402-359-2201
 One Valmont Plaza Omaha, NE 68154-5215
 333111 Center pivot & linear move irrigation systems

VAULT ENTERPRISES INC * B
 Tom Enck - Pres 308-382-2611
 PO Box 1064 Grand Island, NE 68802
 333111 Grain handling equipment, storage systems

VOLZKE CORPORATION A
 Kenneth Volzke - Mgr 402-534-3131
 PO Box 308 Utica, NE 68456-0308
 333111 Lowboy trailers

W & H MANUFACTURING * A
 William Harris - Owner 402-873-5202
 PO Box 255 Nebraska City, NE 68410-0255
 333111 Steel electric fence posts

WASP INC D
 Brad Albu - Mgr 402-245-4494
 RR 1 - Box 166A Falls City, NE 68355
 333111 Remote control calf & steer roping chutes

WATSON WELDING MANUFACTURING INC * A
 Ken Watson - Mgr 308-247-2281
 PO Box 473 Morrill, NE 69358-0473
 333111 Feed bunks, row crop ditcher, stock tank floats & valves, augers

WEDEKIND MANUFACTURING INC A
 Donald Wedekind - Pres 402-447-2700
 RR 1 - Box 134 Lindsay, NE 68644
 333111 Livestock gates & related equipment

WELKER MANUFACTURING B
 Dean Welker - Owner 402-966-2251
 PO Box 28 Kilgore, NE 69261-0028
 333111 Bulk feed handling equipment, flatbeds for pickups

WEMHOFF MANUFACTURING COMPANY A
 Carrol Wemhoff - Mgr 402-564-2970
 PO Box 806 Columbus, NE 68602-0806
 333111 Irrigation pumps & equipment

WENKE MANUFACTURING INC * A
 William Wenke - Owner 402-385-3323
 PO Box K Pender, NE 68047
 333111 Animal confinement gates, farm equipment, horse feeders

WEST POINT DESIGN & IMPLEMENT C
 Erv Eisenmenger - Pres 402-372-2408
 PO Box 255 West Point, NE 68788-0255
 333111 Large commercial manure spreaders, box scrapers

WESTENDORF PLASTICS * B
 Neal Westendorf - Owner 402-333-0568
 14310 C Circle Omaha, NE 68144
 333111 Farm tractor canopies

WESTERN LAND ROLLER INC * E
 Robert Wilson - Mgr 402-463-1306
 PO Box 668 Hastings, NE 68902-0668
 333111 Irrigation well turbine pumps

YAZOO-KEES INC * E
 Dennis Tanner - Mgr 402-223-2391
 PO Box 8 Beatrice, NE 68310-0008
 333112 Lawn & garden equipment, commercial lawn mowers

ZOOK'S WELDING SHOP INC A
 Robert Zook - Pres 308-784-3579
 320 West 5th Street Cozad, NE 69130
 333111 Mechanical pepper pickers

**333120 CONSTRUCTION MACHINERY
 MANUFACTURING**

AUTOMATIC EQUIPMENT MFG INC * E
 Jay Hesse - Pres 402-385-3051
 PO Box P Pender, NE 68047
 333120 Soil scrapers, earth moving equipment, sprayers, grain mills

CONCRETE EQUIPMENT COMPANY INC * F
 Neil Smith - Pres 402-426-4181
 PO Box 430 Blair, NE 68008-0430
 333120 Portable & stationary batching plants for concrete industry

D J WELDING & MANUFACTURING INC A
 Dave Fette - Pres 402-826-2281
 PO Box 316 Crete, NE 68333-0316
 333120 Lifts for wreckers, trailers,

EGGING COMPANY D
 Lou Egging - Pres 308-884-2233
 12145 Road #38 Gurley, NE 69141-6511
 333120 Construction & mining machinery

ELLIOTT EQUIPMENT COMPANY * E
 Jim Glazer - Mgr 402-592-4500
 4427 S 76th Circle Omaha, NE 68127
 333120 Hydraulic aerial platforms & truck mounted cranes, concrete pumps

G I WELDING & PRO-TATCH INC * A
 Kevin Houtwed - Owner 308-381-6275
 1104 S Claude Road Grand Island, NE 68803
 333120 Post hole diggers, hydraulic wire winders, grading blades

GREYSTONE INC * D
 Jim Holmberg - Pres 402-564-9505
 PO Box 904 Columbus, NE 68602-0904
 333120 Sand & gravel handling equipment

HEARTLAND PRODUCTS COMPANY B
 Joseph Fehringer - Pres 402-562-5959
 Route 2 - Box 124 Columbus, NE 68601
 333120 Land grading equipment, scrapers & levelers

JONES MANUFACTURING INC * B
 Bob Jones - Pres 402-528-3237
 PO Box 38 Beemer, NE 68716-0038
 333120 Tub grinders for the construction & agricultural use

NATIONAL CRANE INC * F
 Ted Urbaneck - Pres 402-786-6300
 11200 N 148th Street Waverly, NE 68462
 333120 Hydraulic telescoping & articulating cranes

NECO * D
 Stephen Campbell - Mgr 402-453-6912
 PO Box 12277 Omaha, NE 68112
 333120 Material handling augers, hydraulic cylinders

PANTHER PRODUCTS INC B
 Steven Jones - Pres 402-435-5644
 851 W Street Lincoln, NE 68508
 333120 Roofing machinery & equipment

PAXTON-MITCHELL COMPANY * E
 Alvin Campbell - Pres 402-345-6767
 2614 Martha Street Omaha, NE 68105-3261
 333120 Truck mounted hydraulic cranes & platforms

RUSHVILLE SERVICE..... A
 Duane Lockmon - Owner 308-327-2375
 PO Box 364 Rushville, NE 69360-0364
 333120 Wood splitters

WALTER PLASTIC-GRAPHICS INC A
 Lee Walter - Owner 402-477-7248
 2120 S 7th Street Lincoln, NE 68502
 333120 Gas powered earth augers

**333130 MINING & OIL/GAS FIELD MACHINERY
 MANUFACTURING**

CURLLEY'S MACHINE WORKS INC B
 Darlene Kiefer - Pres 308-235-3651
 PO Box 32 Kimball, NE 69145-0032
 333132 Oil field machinery parts

ISLAND SUPPLY COMPANY..... B
 George O'Brien - Pres 308-382-8567
 PO Box 580 Grand Island, NE 68801-0580
 333131 Gravel pumps & bins, floats for dredges, sand troughs

SMEAL MANUFACTURING COMPANY * C
 Virgil Hunke - Pres 402-568-2221
 PO Box 8 Snyder, NE 68664-0008
 333132 Water well service rigs, oilfield workover rigs

**333210 SAWMILL & WOODWORKING MACHINERY
 MANUFACTURING**

CARLSON SYSTEMS ENGINEERING..... D
 Chuck Gibbons - Vice pres 402-861-6100
 7826 Centech Road Omaha, NE 68138-5000
 333210 Assembly machines for wood windows/cabinets & furniture

**333220 PLASTICS & RUBBER INDUSTRY
 MACHINERY MANUFACTURING**

BREHMER MANUFACTURING INC * B
 Joey Brehmer - Pres 402-687-2655
 PO Box 527 Lyons, NE 68038-0527
 333220 Tire recycling equipment

**333220 PLASTICS & RUBBER INDUSTRY
 MACHINERY MANUFACTURING**

BREHMER MANUFACTURING INC * B
 Joey Brehmer - Pres 402-687-2655
 PO Box 527 Lyons, NE 68038-0527
 333220 Tire recycling equipment

**333290 OTHER INDUSTRIAL MACHINERY
 MANUFACTURING**

CATALINA IRON WORKS A
 L C Harvey - Mgr 402-466-2444
 2601 Theresa Lincoln, NE 68521
 333293 Book handling equipment

CHIEF AUTOMOTIVE SYSTEMS INC * E
 Daniel Faltin - Pres 308-384-9747
 PO Box 1368 Grand Island, NE 68802-1368
 333298 Auto/truck body repair & alignment equipment

COOK & BEALS INC * A
 Patrick Kuehl - Pres 308-745-0154
 PO Box 220 Loup City, NE 68853-0220
 333294 Honey extracting & processing equipment

COUPLMATIC SYSTEMS INC * B
 Clifford James - Pres 308-632-2112
 250413 Skyport Drive Scottsbluff, NE 69361
 333298 Hydraulic hose coupling machinery

ENGINEERED PRODUCTION EQUIPMENT INC * C
 Robert Reischl - Pres 402-399-8282
 8461 Lake Street Omaha, NE 68134
 333293 Printing trades machinery manufacturing, tool & die products

IDEA ENGINEERING INC * B
 Samuel Brown - Pres 402-296-3915
 1115 Race Street Plattsmouth, NE 68048
 333293 Hot stamp presses, engraving machinery, ribbon marking equip.

INDUSTRIAL FABRICATORS * A
 Clark Bettenhausen - Owner 402-372-5522
 PO Box 114 West Point, NE 68788-0114
 333294 Stainless steel food handling, conveyors, recycling equip.

KENNEDY ENTERPRISES INC * B
 David Kennedy - Pres 402-423-3210
 4910 Rent-Worth Drive Lincoln, NE 68516
 333294 Food products machinery & parts

LARRY'S STEEL & WELDING INC A
 Larry Suhr - Pres 308-382-5953
 2422 W Lincoln Hwy Grand Island, NE 68803-5203
 333298 Truck frame straightening machine, truck alignment machine

MERRICK MACHINE COMPANY * C
 Russell Merrick - Pres 308-384-1780
 PO Box 130 Alda, NE 68810-0130
 333298 Industrial nailing & automated framing, sheathing machiner

MID-NEBRASKA AUTOMATION INC * A
 Michael Flodman - Pres 308-384-8264
 3981 W Reuting Road Grand Island, NE 68803
 333298 Automated assembly machinery, automated process machinery

MILLER WELDING COMPANY * A
 Randy Schommer - Owner 308-432-2045
 310 Schommer Loop Chadron, NE 69337
 333298 Alignment system

PRE-WEL MANUFACTURING INC C
 Joel Beebe - Mgr 402-572-6929
 10634 Bondesson Circle Omaha, NE 68122
 333294 Conveyors, stainless steel food plant equipment

PURITAN MANUFACTURING INC * D
 Joseph Waters - Pres 402-341-3753
 13th & Willis Avenue Omaha, NE 68110-2591
 333294 Food products machinery, stainless steel conveyors

SUN MANUFACTURING INC A
 Patsy Dohrman - Pres 402-695-2855
 PO Box 372 Emerson, NE 68733-0372
 333294 Meat processing equipment

**333310 COMMERCIAL/SERVICE INDUSTRY
 MACHINERY MANUFACTURING**

ACCESSORY SALES INC * B
 Brian Wilson - Pres 308-235-4685
 PO Box 160 Kimball, NE 69145-0160
 333319 Manufactured vacuum & air filtration systems, modular clea

ARC PRODUCTS INC * A
 Neely Kountze - Pres 402-345-0042
 1755 E Locust Street Omaha, NE 68110
 333311 Bicycle lock, bicycle parking systems

BALLANTYNE OF OMAHA INC * F
 John Wilmers - Pres 402-453-4444
 4350 McKinley Street Omaha, NE 68112-1600
 333319 Restaurant equipment

CHIEF INDUSTRIES INC * H
 Robert Eihusen - Pres 308-382-8820
 PO Box 2078 Grand Island, NE 68802-2078
 333319 Sewage treatment systems

CRONE OPTICAL INC A
 William Roth - Pres 402-463-7410
 PO Box 848 Hastings, NE 68902-0848
 333314 Optical products

DULTMEIER INC * C
 Kathleen Reynolds - Mgr 402-333-1444
 PO Box 45565 Omaha, NE 68145
 333319 Manufacture of power washers & related components

DUNRITE INC A
 Leroy Klinzing - V Pres 402-721-3061
 PO Box 3 Fremont, NE 68026-0003
 333319 Shop vacuums

ELECTION SYSTEMS & SOFTWARE INC * F
 William Welsh - Pres 402-593-0101
 11208 John Galt Blvd Omaha, NE 68137
 333313 Ballot counting hardware & supplies

HTS INC A
 Robert Stecker - Pres 308-345-5660
 501 East B Street McCook, NE 69001
 333319 Edible fat purifier filtering machine

JERNAN COMPANY A
 Nancy Boyle - Owner 308-534-0501
 1808 West 15th Street North Platte, NE 69101
 333319 Chemical dry cleaner to remove hardwater build-up

LARGEN MANUFACTURING INC A
 Fred Largen - Pres 402-358-5141
 PO Box 235 Creighton, NE 68729-0235
 333319 Commercial deep fat pressure fryers

LESTER ELECTRICAL - NEBRASKA * G
 James Carrier - Pres 402-477-8988
 625 West A Street Lincoln, NE 68522
 333319 Water distillers

LINCOLN MANUFACTURING INC * D
 David Hubertus - Gen Mgr 402-464-7418
 PO Box 30303 Lincoln, NE 68503
 333319 Tire repair equipment

MARTINSTILL CORPORATION * C
 Dave Martin - Pres 402-436-2595
 5001 S 16th Street Lincoln, NE 68512
 333319 Water distilling equipment

PHOENIX WATER TECHNOLOGY INC * A
 Richard Loutzenheiser - Mgr 402-751-2135
 PO Box 308 Juniata, NE 68955-0308
 333319 Reverse osmosis water purifier, R/O dispensing units, KIOS

POWER SERVICE INC A
 Max Hoover - Mgr 402-362-6000
 2917 North Lincoln Avenue York, NE 68467
 333312 Attachments for power chain saws, power washers

PURE WATER INC * D
 Al Meder - Pres 402-467-9300
 PO Box 83226 Lincoln, NE 68501-3226
 333319 Water purification appliances for homes & business.

TECHNIK MANUFACTURING INC * C
 Dennis Carstens - Pres 402-564-3191
 1005 17th Street Columbus, NE 68602
 333311 Automatic vending machines

WOOD BROTHERS INDUSTRIES INC * A
 Dave Muhle - Owner 402-476-1236
 621 Westgate Blvd Lincoln, NE 68528
 333319 Water treatment equipment

**333410 HEATING/AIR CONDITIONING REFRIGERATION
 EQUIPMENT MANUFACTURING**

ACE IRRIGATION & MANUFACTURING CO C
 Lynn Thomas - Pres 308-237-5173
 4740 E 39th Street Kearney, NE 68847
 333412 Centrifugal & axial fans, gas & electric heaters

ALANCO ENVIRONMENTAL MFG D
 Jerry Oliver - Mgr 402-245-2325
 PO Box 398 Falls City, NE 68355-0398
 333411 Aeration fans for commercial & farm, dust filters & collectors

BENAIRE MANUFACTURING INC A
 B B Herboldsheimer - Pres 308-879-4579
 PO Box 314 Potter, NE 69156-0314
 333415 Farm implement air conditioners, ceiling mounted heaters

BLAZER MANUFACTURING INC * C
 Gordon Blaser - Mgr 402-564-2262
 PO Box 266 Columbus, NE 68601-0266
 333411 Air cleaning systems

CONCRETE EQUIPMENT COMPANY INC * F
 Neil Smith - Pres 402-426-4181
 PO Box 430 Blair, NE 68008-0430
 333411 Dust collection/bag houses

EVEN TEMP INC * D
 Stephen O'Donell - Pres 402-728-5255
 PO Box 127 Waco, NE 68460-0127
 333414 Woodburning, pellet burning stoves, & gas fireplaces & stoves

HASTINGS INDUSTRIES INC * E
 Brenda Randall - General Manager 402-463-9821
 PO Box 548 Hastings, NE 68902-0548
 333414 Commercial & industrial heaters & air conditioning equipment

PERRIN MANUFACTURING INC * B
 Gary Schmer - Pres 308-762-2975
 PO Box 740 Alliance, NE 69301-0740
 333411 AC & DC blowers, heaters for construction equipment

PRECISION FABRICATORS & FOUNDRY * B
 Richard LeBron - Pres 402-571-4848
 6114 Country Club Road Omaha, NE 68152
 333415 Hose kit with gage for refrigerated products

RAY GOODWIN COMPANY A
 Ray Goodwin - Pres 402-592-7788
 PO Box 3607 Omaha, NE 68103-3607
 333414 Solar heating equipment, spiral pipe fittings

THERMO KING INC * F
 Greg Whitton - Mgr 402-463-6751
 PO Box 862 Hastings, NE 68901-0862
 333415 Transport refrigeration units

**333510 METALWORKING MACHINERY
MANUFACTURING**

A-Z TOOL GRINDING INC A
 Jerry Zeigler - Pres 402-572-7071
 10620 Bondesson Circle Omaha, NE 68122
 333515 Cutting tools (manufacture & sharpening)

ACCUTATE TOOL INC A
 Kirk Robertson - Pres 402-339-4477
 8540 I Street Omaha, NE 68127
 333512 Precision machining, tool & die manufacturing

ACE IRRIGATION & MANUFACTURING CO. C
 Lynn Thomas - Pres 308-237-5173
 4740 E 39th Street Kearney, NE 68847
 333511 Plastic & rubber injection molding, irrigations gaskets

ARLO'S MACHINE SHOP A
 Arlo Stark - Owner 402-463-1749
 1114 Garfield Street Hastings, NE 68901
 333514 Tool & die products

AUTOMATED TECHNOLOGIES INC A
 Mike Anderson - Pres 402-564-0719
 1005 17th Street - Bldg F Columbus, NE 68601
 333514 Tool & die products

BEATRICE MACHINE INC A
 John Lampe - Owner 402-228-3455
 410 Market Street Beatrice, NE 68310
 333514 Tool & die products

BEHLEN MFG. CO. * G
 A F Raimondo - CEO 402-564-3111
 PO Box 569 Columbus, NE 68602-0569
 333513 Hydraulic presses

COOKE COMPANY * C
 John Cooke - Partner 402-342-7175
 PO Box 3848 Omaha, NE 68102-3838
 333513 Rotary daters, time stamping devices

CORNHUSKER TOOL MACHINE & MFG INC A
 Robert Selko - Pres 402-463-6523
 1122 Franklin Avenue Hastings, NE 68901
 333514 Injection molds, welding & assembly fixtures & jigs

CREATIVE TECHNOLOGIES INC B
 A J Leatherman - Owner 402-464-5553
 PO Box 29377 Lincoln, NE 68529-9377
 333514 Tool & dies, jigs, fixtures & industrial molds

CURRY TOOL INC * A
 Gerald Curry - Pres 402-331-5850
 8951 H Street Omaha, NE 68127
 333514 Manufacture of dies & tooling, CNC machining

DISTEFANO TOOL & DIE INC E
 Carl Distefano - Owner 402-451-1796
 5102 N 30th Street Omaha, NE 68111
 333514 Dies, molds, jigs, & fixtures

DONNER METAL PRODUCTS A
 Kenneth Donner - Owner 402-529-3550
 PO Box 488 Wisner, NE 68791-0488
 333514 Roto mold tooling & metal fabrication

DRAMCO TOOL INC C
 Michael & Richard Pitcher - Owners 308-382-5251
 502 Claude Road Grand Island, NE 68803
 333514 Tool & die, plastic injection molds, wire EDM

DY-NA TOOL & MOLD B
 Darren Yendra, Randy Damratowski - Owner 308-234-5886
 PO Box 1993 Kearney, NE 68847-1993
 333514 Tool & die, plastic injection molds, jigs & fixtures

EILERS MACHINE & WELDING INC C
 Brian Eilers - Pres 308-324-3751
 PO Box 517 Lexington, NE 68850-0517
 333513 Machine tools, metal forming type

FRICKEY'S MACHINE SHOP INC A
 Patrick Frickey - Pres 308-381-8846
 2217 W 3rd Street Grand Island, NE 68803
 333514 Tool & die production

GARNER INDUSTRIES INC * E
 Philip Mullin - Pres 402-434-9100
 4200 N 48th Street Lincoln, NE 68504
 333514 Tool & die, plastic molds

H & S PRECISION TOOLING A
 Frank Smutny - Owner 308-384-1910
 1721 S Holland Street Grand Island, NE 68803-5623
 333514 Tools, dies & molds, general machining, heat treating

HOSKINS MANUFACTURING INC * B
 Richard Doffin - Mgr 402-565-4420
 PO Box 101 Hoskins, NE 68740-0101
 333514 Tool & die products

HYDRAULIC MACHINE INC * B
 Whitney Hanner - Owner 402-564-7149
 PO Box 849 Columbus, NE 68602-0849
 333513 Hydraulic ironworkers, hydraulic presses, tool & die work

INDUSTRIAL ENGINEERING INC * C
 Maurice Melcher - Pres 402-564-1383
 2070 E 32nd Avenue Columbus, NE 68601-7274
 333514 Tool & die, jigs, fixtures, custom machine fabrication

INDUSTRIAL MACHINE SPECIALTIES D
 Nick Cusick - Pres 402-474-6603
 603 L Street Lincoln, NE 68508
 333514 Tool & die manufacturing

INTER-MOTION INC C
 Jim Zecha - Pres 308-234-9497
 PO Box 400 Kearney, NE 68848-0400
 333512 Electrical & mechanical machine tools manufacturing

JMS MANUFACTURING A
 Duane Kempkes - Owner 402-571-0898
 10026 Kings Plaza Omaha, NE 68122
 333514 Custom injection molding

JOHNSON TOOL & DIE A
 Dwayne Johnson - Owner 402-564-7256
 2121 53rd Street East Columbus, NE 68601
 333514 Dies & fixtures

L & K MACHINE A
 Larry Harrington - Owner 402-433-4751
 PO Box 484 Western, NE 68464-0484
 333514 Tool & die products

L & M MACHINE TOOLS INC * A
 Mark Miigerl - Pres 308-452-4048
 PO Box 92 Ravenna, NE 68869-0092
 333515 Tool & die manufacturing

LENCO INC - PMC * E
 Daryl Chapelle - Mgr 402-786-2000
 PO Box 590 Waverly, NE 68462-0590
 333514 Tools & dies for plastic injection molding

LINCOLN MACHINE INC D
 Robert Lichtenberg - Pres 402-434-9140
 4317 Progressive Avenue Lincoln, NE 68504
 333514 Tool & die molds, machine tool products

LINCOLN TOOL & DESIGN INC C
 Rick Wagner - Pres 402-464-2166
 5801 North 57th Street Lincoln, NE 68507
 333515 Precision tooling

MACHINE TECHNOLOGIES INC A
 Roger Hansen - Pres 308-832-0671
 PO Box 11 Minden, NE 68959-0011
 333515 Super diamond abrasives, precision component parts

MID-NEBRASKA AUTOMATION INC * A
 Michael Flodman - Pres 308-384-8264
 3981 W Reuting Road Grand Island, NE 68803
 333514 Tool & die, plastic injection molds

MILKO TOOL & DIE INC C
Dennis Miller - Pres 402-345-2923
PO Box 12202 Omaha, NE 68112-0202
333514 Custom tool & die, jigs & fixtures, dies, molds

MOHRMANN TOOL INC * B
Gene Mohrmann - Pres 402-563-2181
PO Box 1393 Columbus, NE 68602-1393
333514 Specialty tooling & dies & molds

MUSIL MACHINE & TOOL A
David Musil - Owner 308-382-7044
304 E Second Street Grand Island, NE 68801
333513 Manufacture gears & spline shafts

NEBRASKA SAW & TOOL INC * A
Adria Krueger - Pres 402-564-0504
PO Box 1156 Columbus, NE 68601-1156
333515 Tungsten carbide cutting tools

OBERG INDUSTRIAL MACHINE & TOOL A
Dennis Oberg - Owner 402-371-8727
PO Box 1432 Norfolk, NE 68702-1432
333514 Tool & die manufacturing, precision machining

OLSON MANUFACTURING COMPANY * A
Lonnie Olson - Pres 308-287-2348
PO Box 157 Brule, NE 69127
333512 Metal cutting bandsaws, fabricated metal products

P D PLASTICS INC C
Mark Keffeler - Pres 402-592-2169
8939 F Street Omaha, NE 68127
333514 Tool & die, injection molding

PENNER MACHINE COMPANY..... A
Mike Penner - Owner 402-694-2293
PO Box 282 Aurora, NE 68818-0282
333514 Tool & die production, machining

PLATTE VALLEY TOOLING * C
Larry Sleddens - Mgr 402-562-7700
1851 East 32nd Avenue Columbus, NE 68601
333513 Metal forming & welding equipment

PRECO-PRODUCT RESEARCH & ENG INC B
John Mimick - Pres 402-493-3337
607 N 108th Street Omaha, NE 68154-1701
333518 Plant metalworking machinery

RED BARN SHOP A
Monte Walton - Owner 308-635-0992
240188 Karubos Road Scottsbluff, NE 69361
333514 Stamping dies, specialty tool & die products

RICHMOND ENGINEERING INC A
Richard Kruse - Pres 402-571-1919
3120 North 84th Circle Omaha, NE 68134-4977
333518 Design & build automated assembly machines

RIVERS METAL PRODUCTS INC * E
Todd Rivers - CEO 402-466-2329
3100 N 38th Street Lincoln, NE 68504-1998
333514 Steel molds for rotational plastics

SPIRAL - AIR INC A
Ray Goodwin - Owner 402-592-7788
PO Box 3607 Omaha, NE 68103-3607
333513 Oval fabricating machine

TEK INDUSTRIES F
Stephen Nability - CEO 402-721-5777
PO Box 1328 Fremont, NE 68025
333514 Steel rule dies

THOMAS MACHINING A
Matthew Thomas - Owner 402-564-6393
PO Box 1021 Columbus, NE 68602-1021
333514 Tool & die, jigs, & fixtures

TRI-V TOOL & MANUFACTURING INC D
Dave Vyhldal - Pres 402-895-9000
13434 CenTech Road Omaha, NE 68138
333511 Tool & die manufacturing

TRI-V TOOL & MANUFACTURING INC D
Dave Vyhldal - Pres 402-895-9000
13434 CenTech Road Omaha, NE 68138
333514 Automated robotic machines, CNC milling, gages, tool & die

WAGNER TOOL & ENGINEERING INC B
Steve Wagner - Pres 402-371-4344
PO Box 1662 Norfolk, NE 68702-1162
333514 Tool & die, precision machining, CNC machining

ZAP MUNUFACTURING INC A
Pat Czapla - Pres 402-993-6011
PO Box 580 Genoa, NE 68640-0580
333514 Tool & die, mold work, jigs, fixtures

333610 ENGINE, TURBINE/POWER TRANSMISSION EQUIPMENT MANUFACTURING

ADDAX INC * D
James T. Heard - Gen mgr 402-435-5253
PO Box 81467 Lincoln, NE 68501
333612 Light weight drive shafts for industrial use

COLEMAN POWERMATE INC * F
Richard Hawkes - V pres 308-237-2181
PO Box 6001 Kearney, NE 68848-6001
333611 Electrical generators

G & G MANUFACTURING INC * A
Steven Holcomb - Mgr 308-745-0914
PO Box 188 Loup City, NE 68853-0188
333613 Universal joints, power take-off shafts, jacks

G & G MANUFACTURING INC * E
Roxanne Tucker - Pres 402-453-9595
PO Box 12086 - Florence Station Omaha, NE 68112-2086
333613 PTO shafts, spline adapters, rolled threads, sprockets

GESSFORD MACHINE SHOP INC B
George Anderson - Pres 402-463-9844
701 W South Street Hastings, NE 68901
333618 Remanufacture of gas & diesel engines

JOHNSON GEAR DIVISION * B
Bob Welton - Mgr 402-474-5285
1401 W Bond Circle Lincoln, NE 68521
333612 Right angle gear drives

MARK HYDRAULIC INC C
John Rossi - Pres 402-734-6734
4771 G Street Omaha, NE 68117
333611 Custom hydraulic & pneumatic systems & components

MARSHALL ENGINES INC * F
Norris Marshall - Pres 308-234-6788
404 W 8th Street Kearney, NE 68847
333618 Engine & components remanufacturing

STEIN MANUFACTURING INC A
Ken Stein - Pres 402-463-8453
4030 S Wabash Avenue Hastings, NE 68901
333613 Industrial pulleys

US ELECTRICAL MOTORS * A
Larry Phillips - Mgr 402-462-2103
PO Box 637 Hastings, NE 68901-0637
333612 Gear reducers

WEMHOFF MANUFACTURING COMPANY A
Carrol Wemhoff - Mgr 402-564-2970
PO Box 806 Columbus, NE 68602-0806
333613 V-belt pulleys

333910 PUMP & COMPRESSOR MANUFACTURING

COLEMAN POWERMATE INC * F
Richard Hawkes - V pres 308-237-2181
PO Box 6001 Kearney, NE 68848-6001
333912 Air compressors

DIESEL POWER EQUIPMENT INC C
Bill Engler - Pres 402-330-5100
15225 Industrial Road Omaha, NE 68144-3249
333911 Diesel pumping sets

JINECO EQUIPMENT COMPANY A
Jim Nesci - Pres 402-592-3100
4630 South 85th Street Omaha, NE 68127
333912 Pressure washing equipment & systems

LAYNE-WESTERN INC C
David Singleton - Mgr 402-359-2042
25450 Highway 275 Valley, NE 68064
333911 Turbine pumps

MASPORT INC * B
Christopher Harper - Pres 402-466-8428
6140 McCormick Drive Lincoln, NE 68507-3296
333911 Commercial & industrial pumps, (vacuum & pressure)

MID-AMERICA PUMP & SUPPLY C
Ben Noble - Owner 402-463-5657
PO Box 1287 Hastings, NE 68902-1287
333911 Deep well vertical pumps, centrifugal pumps

SPITZ FOUNDRY INC B
Lyle Kump - Pres 402-462-2012
1200 W South Street Hastings, NE 68901
333911 Gravel pumps & parts

STA-RITE INDUSTRIES INC * E
Gary Swallow - Plant mgr 308-382-7250
1215 Adams Street Grand Island, NE 68801
333911 Centrifugal water systems, submersible pumps & accessories

TRIAD PRODUCTS COMPANY * B
Wayne Venter - Mgr 402-462-2181
1801 West B Street Hastings, NE 68901
333913 Grease injectors for sealed bearings

**333920 MATERIAL HANDLING EQUIPMENT
MANUFACTURING**

CARLSON SYSTEMS ENGINEERING D
Chuck Gibbons - Vice pres 402-861-6100
7826 Centech Road Omaha, NE 68138-5000
333922 Vertical conveyors, strapping machines

CHIEF INDUSTRIES - AG DIVISION * E
Craig Poolman - Pres 308-237-3186
PO Box 848 Kearney, NE 68848-0848
333922 Industrial material handling equipment

CIRCLE R INC * D
Ralph Rogers - Pres 402-494-3711
PO Box 176 South Sioux City, NE 68776-0176
333924 Industrial side-dumping trailers

CONCRETE EQUIPMENT COMPANY INC * F
Neil Smith - Pres 402-426-4181
PO Box 430 Blair, NE 68008-0430
333922 Bins, hoppers & silos, conveyors, material handling system

CYCLONAIRE CORPORATION * C
Jerry Elfring - Mgr 402-362-2000
PO Box 366 York, NE 68467-0366
333922 Pneumatic conveyors, pollution control air filters

DUTTON-LAINSON COMPANY * F
Charles Hermes - Pres 402-462-4141
PO Box 729 Hastings, NE 68902-0729
333923 Winches, fence stretchers, agricultural & industrial jacks

EGGING COMPANY D
Lou Egging - Pres 308-884-2233
12145 Road #38 Gurley, NE 69141-6511
333924 Cabs & protective enclosures for construction & tractors

INTERSYSTEMS INC * E
Rod Cooper - Mgr 402-330-1500
13330 I Street Omaha, NE 68137
333922 Bucket elevators, conveyors, sampling, weighing systems

JEBCO * A
Forrest Goschenour - Mgr 402-426-3131
108 South 12th Street Blair, NE 68008
333924 Truck mounted cranes

MFS/YORK - STORMOR * E
Don Anderson - Pres 308-384-9320
PO Box 2105 Grand Island, NE 68801-2105
333922 Industrial material handling equipment

MILLARD MANUFACTURING INC * D
Harold Ellis - V Pres 402-331-8010
10602 Olive Street Omaha, NE 68128
333922 Conveyors

NEBRASKA TRANSMISSION & ENGINE INC A
Blaine Peterson - Owner 308-537-3787
404 9th Street Gothenburg, NE 69138
333921 Fabrication of lifts for boats & jet skis

OMAHA MILLWRIGHT MANUFACTURING A
Nickolas Kid - Pres 402-558-8650
4505 Cumming Street Omaha, NE 68132-2320
333922 Conveyors

PEREGRINE INC * A
Todd Rivers - Pres 402-466-4011
5301 North 57th Street Lincoln, NE 68507-3150
333924 Positive tracking industrial trailers

ROBOTICS & AUTOMATION CONTROL INC * B
Jerry Scheer - Pres 402-727-5010
PO Box 1027 Fremont, NE 68025-1027
333924 Palletizers, robots, welding systems, Gantry cutting machines

WASP INC D
Brad Albu - Mgr 402-245-4494
RR 1 - Box 166A Falls City, NE 68355
333922 Conveyor equipment, cardboard balers, package handling chutes

**333990 OTHER GENERAL PURPOSE MACHINERY
MANUFACTURING**

AARON MACHINE PRODUCTS INC B
Rolland Strasheim - Pres 402-467-4387
PO Box 256 Bennet, NE 68317-0256
333999 Contract manufacturing, job machine shop

ACCELPAK A
Gene Beauchamp - Owner 402-344-4418
2405 North 11th Street Omaha, NE 68110
333993 Manufacture of packaging equipment for the powder industries

BENSON MACHINE WORKS INC A
Daniel Adams - Mgr 402-551-5544
1516 Military Avenue Omaha, NE 68111
333999 Special machine products

BROEKER WELDING A
Don Broeker - Owner 308-824-3465
PO Box 583 Oxford, NE 68967-0583
333999 Welding

CENTRAL CITY SCALE INC * B
Tom Hawthorne - Pres 308-946-3591
PO Box 197 Central City, NE 688260197
333997 Electronic farm scales

CHEROKEE INDUSTRIES INC * A
Roland Shafer - Pres 308-728-3113
PO Box 352 Ord, NE 68862-0352
333992 Chin-operated hands free welding helmets

COLUMBUS HYDRAULIC COMPANY * D
John Cimpl - Gen Mgr 402-564-8544
PO Box 250 Columbus, NE 68602-0250
333995 Hydraulic & pneumatic cylinders

CUMMINGS & SONS CONSTRUCTION INC * A
Dale Cummings - Mgr 402-455-5853
8624 North 30th Street Omaha, NE 68112
333997 Scales for grain handling & processing

CUSTOM MACHINE & DESIGN INC * B
Mike Voog - Pres 402-464-9595
5300 N 57th Street Lincoln, NE 68507
333999 Custom built machinery & tools

CUSTOM MACHINE & TOOL A
William King - Mgr 402-379-1210
1600 S 3rd Street Norfolk, NE 68701
333999 Manufacture of machinery & equipment parts

CUSTOM METAL A
Ron Jensen - Owner 308-432-2575
227 Morehead Street Chadron, NE 69337
333999 Custom machine shop, manhole extension rings

D V DIVERSIFIED SERVICES A
Richard Dohrman - Sup 402-385-2561
PO Box 666 Pender, NE 68047-0666
333992 Robotic & manual welding, laser cutting

DACO NEON EQUIPMENT * A
Len Pallas - Owner 402-331-2164
PO Box 461084 Papillion, NE 68046-1084
333999 Equipment for neon sign manufacturing

DAN'S WELDING & MACHINE SHOP A
Dan Havranek - Owner 402-336-1959
219 W Douglas Street O'Neill, NE 68763
333999 Custom manufacturing

DELAP MACHINE & MANUFACTURING A
Merril DeLap - Pres 402-772-2188
PO Box 96 Harvard, NE 68944-0096
333999 Machine shop; tool & die manufacturing

EATON CORPORATION * H
Roland McAbee - Mgr 402-571-1000
6600 N 72nd Street Omaha, NE 68122-1704
333996 Hydraulic pumps & motors

EMC INC * A
Herb Egerer - Pres 402-333-2590
3709 S 138th Street Omaha, NE 68144-3311
333999 Lubricators for pneumatic tools

EMERSON MANUFACTURING INC * B
Gregg Voss - Mgr 402-695-2343
PO Box 338 Emerson, NE 68733-0338
333999 Pneumatic jacks for servicing trucks & farm implements

FILTER SPECIALISTS INC OF NEBRASKA * E
Roger Muhle - Gen Mgr 308-382-7232
2302 S North Road Grand Island, NE 68803
333999 Industrial fluid filters

FREMONT MACHINE & TOOL INC * C
Kelly Benes - Mgr 402-721-9261
1669 County Road 21 Fremont, NE 68025
333992 Resistance welding equipment, tool & die products

FREMONT MANUFACTURING INC * F
Tony Goff - Mgr 402-727-9700
905 S Downing Street Fremont, NE 68025
333996 Hydraulic pumps & components

FUNK MACHINE & SUPPLY INC A
David Funk - Pres 402-475-5477
1805 Yolande Street Lincoln, NE 68521
333999 General machine shop products

G & G GRINDING & MACHINE B
Bruce Christopherson - Mgr 402-453-9595
PO Box 12236 Omaha, NE 68112
333999 Surface grinding & machining

GUYNAN MACHINE & STEEL INC A
Eddie Gynan - Owner 308-532-3711
501 E Fremont Drive North Platte, NE 69101
333999 Rebuild shafts & castings, machine shop

HAND MACHINING COMPANY A
Norman Hand - Pres 308-388-3901
PO Box 220 Pleasanton, NE 68866-0220
333999 Custom machine work

HART MACHINE & METAL FABRICATION A
Jerry Huey - Owner 402-453-1166
PO Box 111594 Omaha, NE 68111
333999 Machining & welding, fabrication

HOOTER INDUSTRIES * A
Robert Van Vleet - Pres 308-254-7113
3200 County Road 105 Sidney, NE 69162-3204
333994 Sweat furnace for recycling aluminum

HOWELLS FAB INC B
Thomas Kulhanek - Pres 402-986-1085
PO Box 267 Howells, NE 68641-0267
333999 Automatic fire sprinkler fabrication

LOU'S CUSTOM MACHINE SHOP A
Louie Siebert - Owner 402-723-4468
PO Box 654 Henderson, NE 68371-0654
333999 Metal fabrication, custom machine work, short line mfg.

MARSH MACHINE & MANUFACTURING A
Douglas Marsh - Owner 402-558-0437
2107 N 42nd Street Omaha, NE 68111
333999 Custom machine work, short run production

MUSIL MACHINE & TOOL A
David Musil - Owner 308-382-7044
304 E Second Street Grand Island, NE 68801
333999 Tool & die, production of small parts

MUSIL MACHINE & TOOL A
David Musil - Owner 308-382-7044
304 E Second Street Grand Island, NE 68801
333995 Build & repair hydraulic cylinders

NEBRASKA IRRIGATION INC * B
Roger Bettenhausen - Pres 402-564-1514
PO Box 1023 Columbus, NE 68601-1023
333993 Packaging equipment

PRECISION MACHINE COMPONENTS INC A
Michael Pennisi - Pres 402-345-3000
1235 S 12 Street Omaha, NE 68108
333999 Precision machining services (contract manufacturing)

PRECISION MACHINING A
Bernard Markussen - Owner 308-284-6828
115 West E Street Ogallala, NE 69153
333999 General machine shop products

R & C WELDING & FABRICATION * C
Craig Carlson & Paul Reed - Owners 308-635-0081
880 E Country Club Road Gering, NE 69341
333999 General machining & welding

S L INC C
Steve LeBron - Pres 402-374-1407
PO Box 108 Tekamah, NE 68061-0108
333994 Paint booths, ovens

SCHUERMAHL WELDING MANUFACTURING A
Russ Schuermahl - Owner 402-824-3465
245 Washington Street Clatonia, NE 68328
333999 Fabricated & re-built agricultural machinery

SIX B MANUFACTURING INC C
Edward Ballard - Pres 402-443-4651
PO Box 72 Wahoo, NE 68066-0072
333999 Machine shop, CNC prod. turning & milling, commercial weld

SYRACUSE IRON WORKS A
Ed Pfeiffer - Owner 402-269-2407
PO Box 67 Syracuse, NE 68446-0067
333999 Custom welding & machining (lathe & mill), fabricating

THOMPSON'S AUTOMOTIVE MACHINE A
Paul Watkins - Owner 308-635-2700
1501 E Overland Scottsbluff, NE 69361-3836
333999 Machine shop

TMCO INC * **C**
Roland Temme - Pres 402-476-0013
507 J Street Lincoln, NE 68508-2935
333999 Contract metal fabrication, precision machining

TUTTLE INC **B**
Gary Tuttle - Pres 402-947-9391
110 Page Street Friend, NE 68359
333993 Materials handling equipment/systems for the food industry

VISION INDUSTRIES INC **A**
Michael Koski - Mgr 402-467-3888
245 South 84th Street - # 215 Lincoln, NE 68510
333999 Machine shop

WELDMATIC INC * **A**
Delmar Kosch - Pres 402-564-1808
PO Box 1322 Columbus, NE 68602-1322
333992 Industrial weld wire dispensers