MINNESOTA: A GOOD PLACE TO DO BUSINESS

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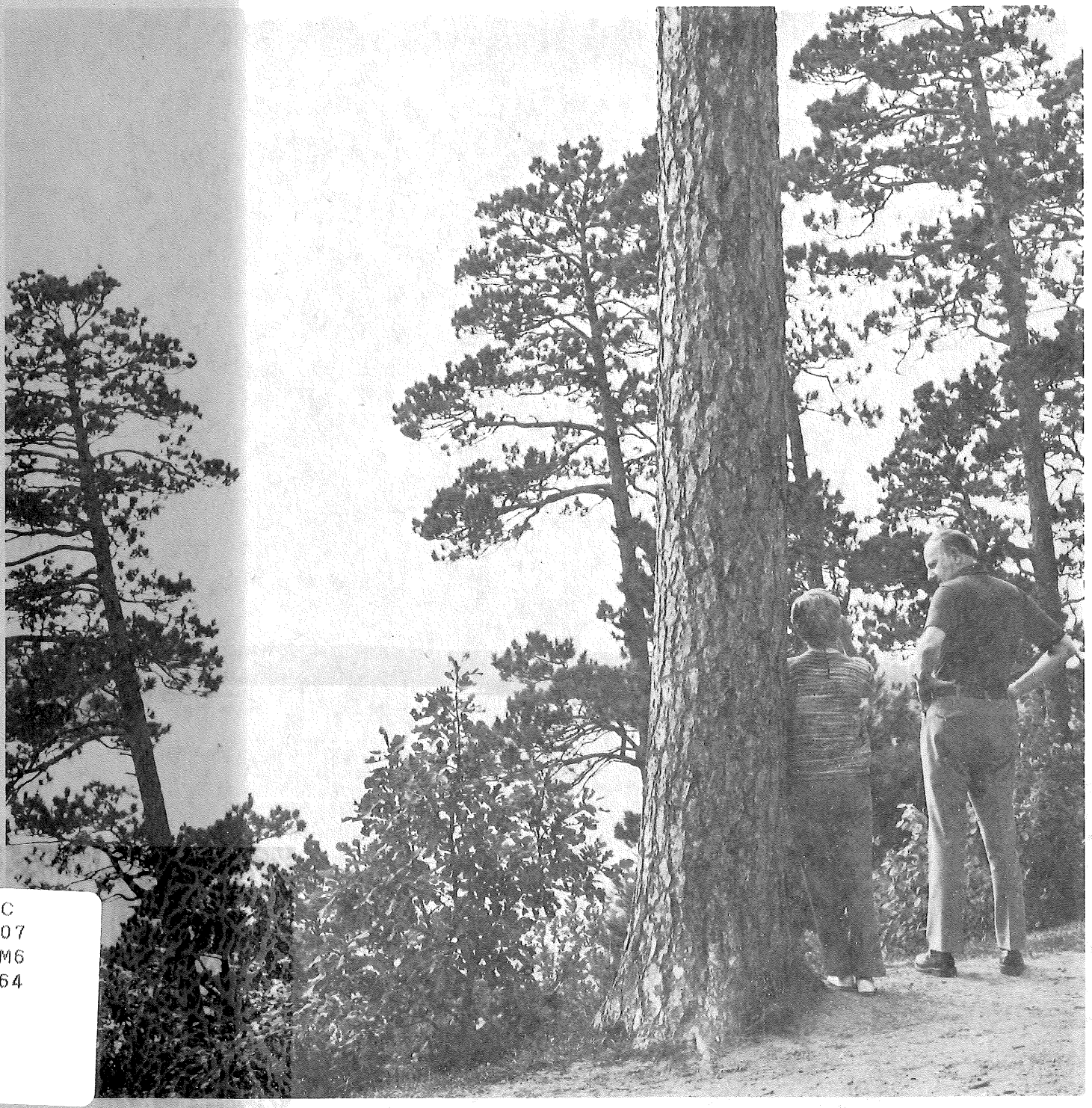
University of Minnesota



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EXHIBITS*

*Exhibits appear at the end of the subject in which they are referenced.

EXHIBITS (Continued)

FOREWORD

This report represents a pooling of information from over 100 public and private sources. Its purpose is to present an accurate, unbiased portrait of the present and projected business environment in Minnesota. We hope it encourages organizations considering location or expansion to investigate Minnesota, and organizations investigating Minnesota to locate here. Our ultimate objective is the creation of jobs in Minnesota.

Clearly this report cannot answer all questions--we hope it raises questions. An addendum of resources for additional information is provided to assist the inquisitive reader. Any questions pertaining to the content of the report should be directed to the Management and Technical Assistance Center, 107 Armory, 15 Church Street S.E., Minneapolis, Minnesota 55455; telephone (612) 373-3281.

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INTRODUCTION

The business environment and composition of Minnesota has changed dramatically since the days of lumber and iron domination. In the past these industries accounted for the major portion of business activity in the state, but today they generate less than 10% of the gross state product. Over the years the number of people employed as lumberjacks and miners has decreased substantially. However, the manufacturing and trade sectors have absorbed this decrease and now employ nearly 50% of Minnesota's labor force.

Computer and biomedical firms, such as Control Data Corporation and Medtronics, unheard of 25 years ago, now generate billions of dollars in revenue. Firms such as these require a highly educated work force and, as will be seen in the Education Section, Minnesotans are very well educated. Perhaps this is the reason Minnesota's gross state product (1968-78) grew at an annual rate of 9.9% compared to 9.3% for the United States gross national product. Clearly Minnesota is a state with momentum, as indicated by an unemployment rate consistently lower than the nation's.

Minnesota not only is growing and building new industries, but it is finding new uses for existing raw materials such as iron ore, peat, and the aspen tree. As taconite transportation costs rise, Minnesota is investigating direct reduction technologies (see Mining Section). As energy costs rise, the state is researching the potential for using its seven million acres of peat as an energy source (Mining Section). Formerly useless resources such as aspens and waste woods are generating new jobs and industry (Forestry Section).

In addition to large changes on the state level, there are significant changes on the regional level. Unquestionably the most significant change is the development of "growth pole cities." These are communities in each region which, due to a combination of factors, are emerging as regional development centers. A detailed explanation and analysis is provided in the Population Section.

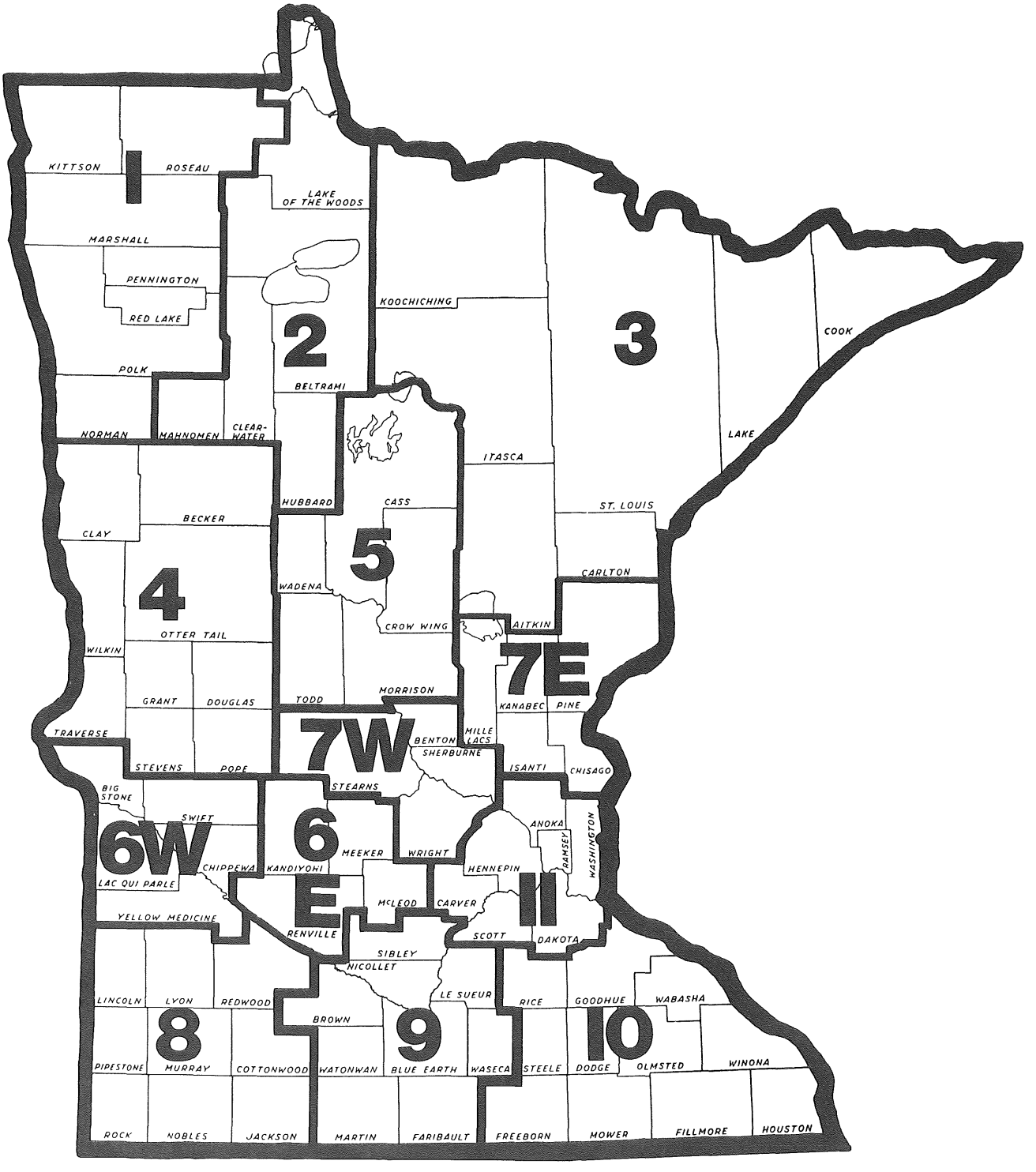
All the changes, growth, and innovation mentioned do not come cheaply. Both business and individuals share expansion costs in the form of taxes. We have presented factual comparisons of taxes and benefits in the Tax and Quality of Life Sections. The decision as to value received for taxes paid will be left to the reader.

In summary, we will show that Minnesota has a high quality business environment in which both large and small businesses can do well. The state is innovative and progressive economically and socially. The labor force is dynamic, intelligent, and well suited to the increasingly complex business composition of the state. Finally, we will show that Minnesota, through public and private efforts, is developing an economic base which will insure long-term prosperity.

Throughout the publication numerous references will be made to the eleven Economic Development Regions of the state. The map on the following page (Exhibit 1) may be used to familiarize readers with the regions.

Exhibit 1

MINNESOTA ECONOMIC DEVELOPMENT REGIONS



Source: Minnesota Statistical Profile 1979

Section I
Highlights

HIGHLIGHTS

Population

Minnesota's present population of about 4 million will experience significant changes affecting business during the next 20 years. Its population will increase to about 4.6 million and the median age will increase from the current 29 to 35 or older. In addition, the population of those citizens over 65 will increase by 25% and those over 85 by 48%.

Regional migratory trends are also becoming evident. Basically, agricultural areas are declining, urban areas are thinning and spreading, and lake and forest areas are experiencing a rapid growth of year-round residents.

On the regional level, "growth pole cities," areas of regional population concentration, are developing.

Labor Force

The state's employment base is becoming increasingly complex in nature. As a result of this increased complexity, Minnesota's labor force has experienced a marked increase in post-secondary education.

- Over one-third of Minnesota's technical and professional employees are between the ages of 25 and 34.
- Females and young males (ages 16-18) are participating in the labor force in increased numbers.
- Women are filling jobs traditionally held by men.
- 25% of management and administrative jobs are now held by women.

Though Minnesota is the home of some of the most sophisticated industries in the world, it still remains an excellent state for small business.

- Over 99% of the state's businesses have less than 250 employees.
- About 75% of the state's businesses have 1-9 employees.

Unemployment

Historically, Minnesota has a "better" unemployment rate than the nation. The state's unemployment rate is slower to increase during recessions and quicker to decrease during periods of economic upturn. Minnesota enjoys this position for six major reasons (see Unemployment section).

However, differences in unemployment rates based on age, marital status, education, and geographic location do exist.

- The range of regional unemployment rates as of August 1980 ranged from a low of 4.6% in Region 11 to a high of 9.1% in Region 3.

- Those under 24 have an unemployment rate about twice the state average. These same rates are true for the unmarried and those with less than 12 years of education.

Education

Minnesota's educational facilities are among the best in the nation providing opportunities for individuals to pursue career and personal goals at a variety of post-secondary institutions.

- 87% of 1979 high school graduates entered post-secondary educational institutions.

- The baby boom generation, the 25-34 year olds, are the most highly educated group in Minnesota's history.

- The percentage of college graduates in men and women of all ages has increased markedly.

In an effort to guarantee potential employers a trained work force, the state has a "New Jobs Training Program" which provides free training to meet the specific manpower needs of new or expanding industry.

Quality of Life

Each city or state could describe its quality of life using a range of criteria. However, one measure of quality of life considered important to any businessman is job satisfaction.

- The number of people dissatisfied with their jobs nationally is 84% higher than in Minnesota!

Land Usage

There are more than 54 million acres of land in Minnesota, of which 77% is cultivated or forested. Hence, every region, including the Twin Cities region which has over 50% of its land farmed or forested, has ample room for business to grow.

Energy

Even though 99+% of the state's energy is derived from energy sources outside the state, Minnesota remains a competitive state in terms of energy costs. This is

confirmed by a recent survey of 26 states, where Minnesota ranked 18th when comparing total energy costs for a hypothetical plant.

Minnesota is relatively wealthy in terms of nonconventional energy sources, the most predominant one being peat. The state has over 7 million acres of potential fuel-quality peat. Rising costs of conventional energy sources may make peat as well as other nonconventional fuels economically feasible. Rising fuel costs may also provide other unexpected advantages in Minnesota. Technologies such as near-site processing of agricultural products and direct reduction of taconite will become increasingly attractive as current transportation costs of these raw materials increase.

Finally, the use of coal is anticipated to double from 13 million tons currently, to 25 million tons in 1985, to as much as 37 million tons in 1995. This reflects the shift away from oil to other alternate forms of energy and encourages the state to develop resources within its boundaries.

Transportation

Minnesota has more than adequate transportation facilities for all business usage.

- Though Minnesota ranks 19th nationally in terms of population, it ranks 4th in the number of publicly owned airports, 4th in miles of highways, and 5th in miles of railroad track.

Complimenting these excellent transportation facilities are the water transport networks consisting of the deep water ports of Duluth and Two Harbors on Lake Superior and the ports of Minneapolis and St. Paul on the Mississippi River.

Taxes

To avoid judgemental statements or attempts to justify Minnesota's present corporate tax structure, comparisons of Minnesota's tax burden are factually presented without comment in the Taxes section. However, the following points should be noted:

- Minnesota's present corporate tax structure is advantageous to large interstate companies.

- Minnesota's tax structure puts small business at a competitive disadvantage with surrounding states. A possible remedy is graduation of the corporate tax structure.

- Minnesota does not offer tax concessions to entice specific companies to locate in Minnesota because they are relatively ineffective tools.

- The major difference in taxes paid in various locations throughout the state is in the property tax.

- Workers' Compensation rates in Minnesota are among the highest in the nation. This in not due to high benefit rates, but rather to relative ease of eligibility.

Income

Minnesota's diverse economic base results in a wide range of incomes throughout the state. In general, agricultural areas have incomes which reflect the fortunes of the harvest. Counties in the Twin Cities region (Region 11), Olmsted County in Region 10 (including Rochester), and Sherburne County in Region 7W (including St. Cloud) were the only areas to have higher than state median husband/wife family incomes. These counties represent over 50% of the state's population. (See Minnesota Economic Development Regions map, Exhibit 1, previous section).

Minnesota Business Patterns

Most major industrial groups in Minnesota have had an average annual growth rate of 10% during each of the last 10 years.

- Manufacturing comprised 56% of all new and 76% of all expanding industry in 1979. It also accounted for 60% of all the jobs in new and expanding industry in 1979. This amounted to a total investment of 768 million dollars and over 7500 new jobs.

- Of this total for all manufacturing, forest product related industries accounted for 446 million dollars, or 58% of all new and expanding manufacturing.

Strategic Industries

The Minnesota Department of Economic Development has designated five areas of economic activity as growth areas for the coming decade. These five areas have been commonly referred to as the strategic industries. The industries and the rationale for their selection follow:

- AGRIBUSINESS. Because world-wide food demands continue to grow and Minnesota's great productive power can be further strengthened by increasing its processing capabilities.

- HIGH TECHNOLOGY. Because it provides an effective means of lowering cost and increasing output and encourages manufacturers to take advantage of Minnesota's leading position in the industry.

- FORESTRY. Because endlessly renewable forest products are essential for construction and paper, and Minnesota is a leader in forestry production.

- MINING. Because the earth's finite resources of copper, nickel, and iron ore are becoming more precious every day and Minnesota is rich in these natural resources.

- TOURISM. Because people have more time to spend in recreational activities; leisure time helps persons lead happier, more productive lives; and Minnesota has an attractive, growing recreational-based industry.

Agribusiness

Agribusiness in Minnesota is a multi-billion dollar industry. Of the top twenty publicly owned companies in Minnesota, eight are classified as agribusiness companies. In addition to these large companies, there are about 50,000 employees in over 800 food processing firms throughout the state.

- There are 104,000 farms of an average size of 291 acres with an average net income of $15,000.

- There are eight crops which make up most of the agribusiness base in the state. They had a 1979 production value of 3.3 billion dollars. The other major component of the agricultural base was livestock and poultry which had a 1979 value of 2.1 billion dollars.

- One area of great potential for agribusiness in Minnesota will be near-site processing of farm products.

High Technology

Minnesota is a spawning ground for high technology companies. The strength of these businesses has not only made use of the state's highly educated work force, but substantially contributed to keeping Minnesota's unemployment rate well below the national level.

Forestry

Simply put, the forest products industry in Minnesota is being reborn. New technologies are providing different, more efficient utilization of all species. Some future uses include using wood as a fuel source, waferboard and animal feed. Even aspens, once considered a weed tree, are being considered for many new and innovative uses in industry.

Mining

Currently, iron ore/taconite mining dominates with 1.9 billion dollars, or 95% of the 1979 production value of Minnesota's mining industry, being generated by the iron ore industry.

Currently three major sources of new potential mining-related industry in Minnesota appear to be promising: (1) mining of the estimated 65 billion dollar copper-nickel reserves in Region 3, (2) direct reduction of taconite, also in Region 3, and (3) gasification of Minnesota's abundant peat resources. Each is being evaluated in terms of economic, social, political, and environmental impact.

Tourism

The tourist industry in Minnesota is a two billion dollar industry. Most of the tourism in Minnesota is designed to take advantage of the state's abundant natural resources. The major trends affecting Minnesota's tourism are:

- Vacations are getting shorter, hence people are vacationing closer to home.
- Demands for planned activities at vacation sites are increasing.
- Most Minnesota vacationers are repeat visitors.

Section II
Minnesota's "Natural" Resources

Population

POPULATION

The final 1980 Census figures show Minnesota's population to be 4,077,148[1]. This population is expected to grow to 4,652,800 by 2000[2] (Exhibit 2). The most dramatic changes in regional population will be the large increases expected in Regions 7E and 7W. St. Cloud in Region 7W is currently the state's fastest growing metropolitan area and is projected to continue experiencing rapid growth (Exhibit 3). The counties surrounding the Twin Cities are also expected to experience greater than average growth at the expense of Hennepin and Ramsey counties (Exhibit 4). The age composition of the state will shift from a current median of about 29 to 35 or older by the year 2000 (Exhibit 5). This is a direct reflection of the maturing of the post-WW II baby boom.

There also will be significant changes in other age groups. Minnesotans 54 or older will increase by 25% and the number 85 and older by 48% during the years 1970-2000. This dramatic increase in the population of the elderly will generate new businesses catering specifically to older, retired persons. Retirement apartments and condominiums as well as expanded leisure activities are examples of new businesses that are anticipated.

Within the state three migratory trends have developed. In general, the population in agricultural areas has declined, urbanites have been moving to outer city areas, and new year-round residents have been relocating to the lake and forest areas[3].

Intra-Regional Population Shifts

One of the most dramatic developments in population shift to affect Minnesota business is the intra-regional shifts resulting in the development of regional centers. The Department of Agricultural Economics at the University of Minnesota states, "Each region has one or two growth pole cities to which to attribute most of the growth[4]." Those areas which were identified by the University's study as possible "growth pole cities" are shown in Exhibit 6.

"Growth pole cities" usually are located at the intersection of major regional highways, often have other well-developed rail and/or air transportation facilities, and usually provide opportunities for post-secondary education. These cities are rapidly becoming regional economic leaders and hope to attract new and expansion businesses by providing a range of industry-related facilities.

Regional Migration and Natural Increase/Decrease Patterns

Population growth or decline is always a combination of in or out migration and births and deaths. The proportionate mix of these has many consequences for business. Basically, migration occurs for economic reasons such as greater relative employment opportunities in areas such as Regions 7E and 7W, or personal reasons such as desires for leisure lifestyles in Regions 2 or 5, or a combination of these.

Exhibit 7 shows projected regional migration rates for the period 1970-1990 based on actual migration rates from 1970-1978. Regions 7E, 7W, 2, and 5 have the largest percentage of growth due to migration with 48, 32, 26, and 20 percent respectively.

For business considerations it is important to know if a region's migration was for employment or other reasons. In analyzing Exhibit 7, the Department of Agricultural Extension uses growth changes by age group breakdowns to distinguish between employment or "value" motivation for migration. The following results were reported.

Using the growth changes by age group breakdowns, Exhibit 8 provides probable explanations to distinguish between employment and value motivation as causes of migration. For example, if the 65+ age group exceeds the state's average, either the region has a naturally high number of elderly or it is a popular retirement area. If the infant age group (0-4) is larger than the state average, then young families may be migrating for employment reasons.

Regions 3, 6W, and 8 have zero growth in the 0-4 age group but high 65+ growth. This shows signs of a mixture of natural aging and retirement activity. The opposite is true in Region 6E.

Region 11 deserves an altogether different treatment of migration. The Twin Cities metro area is projected to have out-migration of about 6,500 persons per year. About 83 percent of all state migrants will originate from the metro area.

Summary

Minnesota's population of about 4 million today is expected to grow to about 4.6 million by 2000. This growth rate is slower than the nation's, but greater than, or equal to, all of the neighboring states. The large baby boom generation will dominate the population and, as it moves through time, will raise the median age from its present 29 to about 35 by the year 2000.

On the whole, agricultural regions are losing population, cities are spreading, and tourist-type regions are becoming homes for many year-round residents. Regional growth will be concentrated around the "growth pole cities" unless energy considerations have an adverse affect on this apparent trend.

If Minnesota's past is any indication of its future, the population will adapt well to changes in energy and economic conditions in order to allow continued progress both economically and socially and to maintain its national reputation as an excellent state in which to do business.

Footnotes

1. U.S. Bureau of the Census, 1980 Population Report, Minneapolis Star.
2. Minnesota State Planning Agency, Minnesota Population Projection 1970-2000.
3. Minnesota State Planning Agency, Planning for the Future, Population Estimates for Minnesota Counties 1979.
4. University of Minnesota, Department of Agricultural Economics, Bulletin #32, Population Projections for Minnesota Through 1990.

Exhibit 2

MINNESOTA AND UNITED STATES PROJECTED POPULATIONS

	Minnesota	U.S. Census	Minnesota as % of U.S.
1940	2,792,000	132,166,000	2.11%
1950	2,982,000	151,326,000	1.97
1960	3,414,000	179,323,000	1.90
1970	3,805,000	203,212,000	1.87
1975	3,923,000	213,137,000	1.84
1980	4,076,800	223,532,000	1.82
1990	4.421.500	246,089,000	1.80
2000	4,652,800	263,830,000	1.76

Sources: Minnesota State Demographer, State Planning Agency; U.S. Bureau of Census

Exhibit 3

REGIONAL POPULATION AS A PERCENT OF STATE TOTAL POPULATION

Region	1960	1970	1975	2000
1	3.0%	2.5%	2.5%	2.1%
2	1.5	1.4	1.5	1.6
3	10.1	8.6	8.4	7.0
4	5.4	5.0	4.9	4.6
5	3.2	3.0	3.0	3.0
6E	2.8	2.6	2.6	2.5
6W	2.0	1.6	1.6	1.2
7E	2.0	2.0	2.2	3.1
7W	4.1	4.5	4.8	6.2
8	4.4	3.8	3.6	3.0
9	6.2	5.7	5.7	5.2
10	10.5	10.1	10.1	9.9
11	44.8	49.6	49.1	50.6
State	100.0%	100.0%	100.0%	100.0%

Source: Minnesota Department of Economic Development

Projected Percentage Population Change,
Minnesota Counties by Region, 1980-1990, 1990-2000

Region	1980-1990	1990-2000
1	2.5	-1.3
2	10.1	5.5
3	3.6	0.9
4	5.1	1.9
5	7.4	4.1
6E	6.4	4.5
6W	-1.3	-4.7
7E	23.2	19.5
7W	17.9	11.9
8	1.3	-3.1
9	2.1	0.0
10	6.9	4.1
11	5.8	5.5
State	6.4	4.6

Source: Revised Population Projections for Minnesota Counties, State Planning Agency, May 1979.

Exhibit 4

METRO AREA POPULATION CHANGE 1970-1980

	Council Estimate 1980	Population 1970	Change
Anoka	200,140	154,712	+45,428 +29%
Carver	36,510	28,331	+8,179 +29%
Dakota	196,990	139,808	+57,182 +41%
Hennepin	928,932	960,080	-31,148 -3%
Ramsey	452,036	476,255	-24,219 -5%
Scott	45,580	32,423	+13,157 +41%
Washington	112,040	83,003	+29,037 +35%
Seven County Total	1,792,228	1,874,612	+97,616 +4.9%
St. Paul	262,980	309,866	-46,886 -15%
Minneapolis	363,940	434,400	-70,460 -16.2%

Source: Metropolitan Council

Exhibit 5

MINNESOTA POPULATION BY AGE GROUP 1970-2000

Age	1970	1980	1990	2000
0-14	1,151,089	940,064	1,034,097	980,260
15-29	914,958	1,178,469	1,006,207	952,864
30-44	602,342	761,405	1,092,346	1,161,394
45-59	573,871	568,039	617,546	878,615
60-74	395,860	441,205	463,137	451,443
75+	166,851	187,598	208,163	228,225
Total	3,804,971	4,076,780	4,421,496	4,652,801

Source: Minnesota Population Projection 1970-2000, State Planning Agency

Exhibit 6

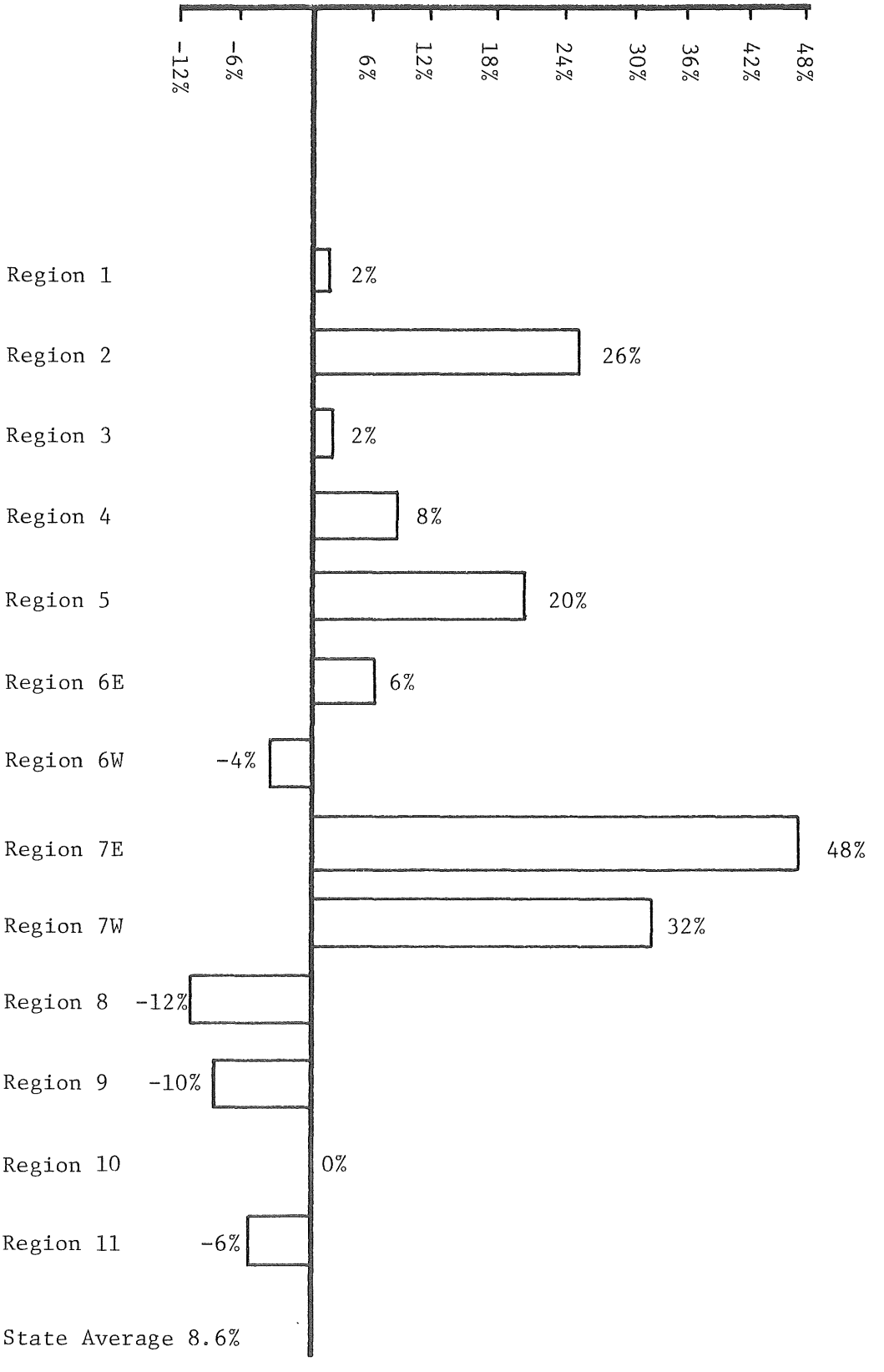
GROWTH POLE CITIES

Region 1	East Grand Forks and Crookston in Polk County
	Thief River Falls in Pennington County
Region 2	Bemidji in Beltrami County
Region 3	Grand Rapids in Itasca County
	Duluth in St. Louis County
Region 4	Detroit Lakes in Becker County
	Fargo-Moorhead in Clay County
	Alexandria in Douglas County
	Fergus Falls in Ottertail County
Region 5	Brainerd in Crow Wing County
Region 6E	Willmar in Kandiyohi County
Region 6W	Montevideo in Chippewa County
Region 7E	Overall Regional Growth
Region 7W	St. Cloud in Stearns County
Region 8	Marshall in Lyon County
Region 9	Little Growth, Major Reductions in Watonwan and Faribault Counties
Region 10	Rochester in Olmsted County
Region 11	Northern Suburban Growth

Source: Population Projections for Minnesota through 1990, Department of Agricultural Economics, Agricultural Extension, and Agricultural Experimenting Station Cooperating. University of Minnesota, March 1980.

Exhibit 7

PERCENT OF REGIONAL GROWTH DUE TO MIGRATION 1970-1990



Source: Department of Agricultural Extension, University of Minnesota.

Exhibit 8

PERCENT SHARE OF INCREASE IN POPULATION ACCOUNTED FOR BY AGE GROUPS WITH NET POPULATION INCREASE IN 1970-90*

	(0-4)	(15-19)	(20-29)	(30-34)	(54-65)	(65+)
Region 1	.69	-	36.77	53.19	-	9.28
Region 2	4.50	-	20.87	60.38	-	14.24
Region 3	-	-	21.63	49.35	-	29.02
Region 4	4.33	-	28.41	54.62	-	12.63
Region 5	1.64	-	28.05	52.88	-	17.43
Region 6E	3.82	-	31.32	53.20	-	11.65
Region 6W	-	-	46.84	38.58	-	14.57
Region 7E	5.85	8.32	23.03	55.71	-	7.09
Region 7W	5.67	-	25.98	56.93	3.00	8.42
Region 8	-	-	37.64	46.31	-	16.04
Region 9	4.15	-	25.07	60.63	-	10.14
Region 10	2.31	-	23.95	61.00	.88	11.88
Region 11	1.73	-	15.71	68.18	6.21	8.12
State	2.41	-	21.68	63.53	1.52	10.90

*Note: To determine the age distribution the gross or net growth in each region's population, the formula used for 1970-90 was:

$$\frac{\text{Actual increase in population for given age cohort, 1970-90}}{\text{Sum of all age cohort groups with positive population change, 1970-90}}$$

A blank in an age cohort in a given region indicates no contribution of that age cohort to net population growth during the 20-year period.

Source: Department of Agriculture Extension, University of Minnesota, Population Projections for Minnesota through 1990.

Labor Force

LABOR FORCE

Minnesota employees are the major reason Minnesota can attract and retain business. Minnesota's employees are an intelligent, conscientious labor force which is continually evolving. Region 11, the Twin Cities area, remains the state's largest employer with over 50% of the labor force (Exhibit 9). Trade, services, government, and manufacturing constitute over 80% of employment with services being the fastest growing area (Exhibit 10).

Organizations such as Honeywell, Control Data, Cray Research, and the Mayo Clinic are located in Minnesota in large part due to the quality of the labor force. Modern organizations are demanding increasingly higher caliber employees to perform increasingly complex duties, and Minnesota is more than prepared to provide these employees. A National Education Association research report shows that Minnesota high school completion is 92.4% and considerably higher than the national average of 79.1%.

In addition, over 87% of recent Minnesota high school graduates continued their education with post-secondary training[1]. These highly educated potential employees are also able to put their training into practice. The Armed Forces Qualification Tests, given to indicate the ability to absorb training and put it into practice, continually report Minnesota among the top 10 states.

The Twin Cities area, employing over half of the state's labor force, also offers potential employers an absentee rate of approximately half the national average[2]. This stability is also reflected in the highest credit ratings in the nation.

A Dynamic Work Force

Minnesota's labor force of about 2 million workers is continually changing in size and composition. As shown in Exhibits 11 and 12, most of the growth is attributable to increases in the population. Over one-third of the total growth, however, is due to increased participation of both females and young males (16-24 years old)[3].

Minnesota's female labor force has voluntarily chosen to be part-time workers[4]. Therefore, an ideal match can occur between this high quality labor force which desires part-time employment and those industries with fluctuating business patterns which require part-time workers. This labor resource is also relatively inexpensive to the employer since part-time workers usually do not receive full-time employee fringe benefits, currently averaging 35-40% of payroll[5]. The occupations now filled by women in

Minnesota are concentrated in the service jobs and clerical positions (69 and 80% respectively) and, as would be expected from a progressive state like Minnesota, women now hold almost 25% of management and administrative jobs[6]. Exhibit 12 shows employment both by sex and industry as well as the changing composition (by sex) of the Minnesota industrial base.

This changing industrial base is becoming increasingly complex. Organizations in high technology fields like computer and medical technology are locating and expanding in Minnesota. They are requiring and receiving highly trained employees. An example of Minnesota's ability to respond to rising industrial demands for increasingly skilled employees is that over one-third of all Minnesota's professional and technical employees are between the ages of 25 and 34 years old[7]. Clearly, regardless of what demands are put on the Minnesota labor force, the labor force is readily able to respond.

Employers

Large employers in Minnesota comprise less than 1% of Minnesota employers, yet they employ over one-third of the work force. The following portrays the Minnesota industrial base by size of employer[8].

Number of Employees	% Minnesota Business	% Work Force
1 - 9	73.8	12.1
10 - 250	25.3	50.5
250+	.9	37.4

Summary

When reviewing the Minnesota labor force and employment situation, the following areas are predominant:

1. As of October 30, 1980, 94.6% of the Minnesota labor force is employed. This is higher than the national average of 92.9%.
2. Positions of responsibility are increasing for women in Minnesota. Women managers and administrators in Minnesota now comprise about 25% of all such positions in the state and their percentage is rising.
3. Most (75%) of Minnesota's employment base is concentrated in three regions (Region 3, major city Duluth; Region 10, major cities Rochester and Winona; and Region 11, the Twin Cities area) with almost 60% in Region 11.
4. Most (80%) of Minnesota's employment occurs in four broad industrial classifications: trade, services, manufacturing, and government.

5. The State Planning Agency projects a 1990 labor force of 2,293,000, an increase of 425,600 from 1977. Of this growth, 65% is from increases in population, while 35% is from increased participation in the labor force, particularly among females. It is projected that 63% of all females 16 or older will be in the labor force in 1990. This same participation rate was 44% in 1970 and 55% in 1978.

Conclusion

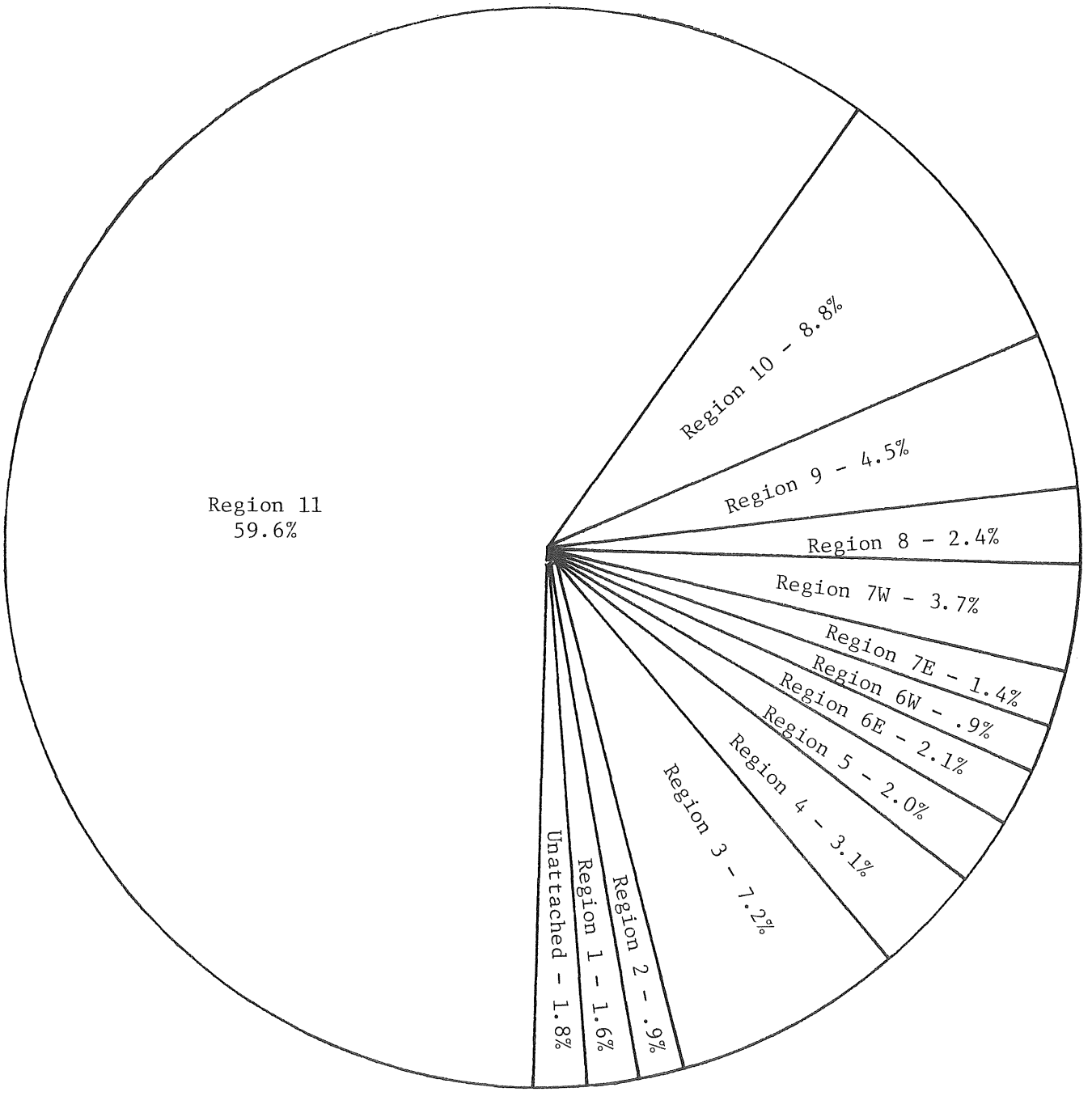
The labor force in Minnesota is capable of handling any demands placed on it. It is a dynamic, intelligent labor force which provides equal opportunity for men and women in all fields of endeavor. Clearly it is Minnesota's greatest resource.

Footnotes

1. Information provided by Steven Rogers, Data Statistician, Minnesota Higher Education Coordinating Board, 1980.
2. Minnesota Department of Economic Development, Tourism Bureau, Metro Profile, 1978.
3. Minnesota State Planning Agency, Planning for the Future, 1979-80.
4. Actual rate was 39.1%, Minnesota State Planning Agency, Minnesota Labor Force, 1977.
5. U.S. Chamber of Commerce, Fringe Benefit Costs, 1980.
6. State Planning Agency, OP. CIT.
7. IBID
8. Data reflects only Covered Employment, i.e. those workers covered by unemployment insurance. This is about 87.5% of the Minnesota Labor Force. Information provided by Mary Hobbs, Researcher, Research and Statistical Services Office, Minnesota Bureau of Employment Security.

Exhibit 9

REGIONAL PERCENTAGES OF TOTAL MINNESOTA EMPLOYMENT



*This chart represents all employees in Minnesota covered by Unemployment Insurance. This is approximately 87.5% of all employees in the state.

Source: Department of Economic Security, Employment and Wages by County, Second Quarter 1979.

Exhibit 10

REGIONAL EMPLOYMENT FOR MAJOR MINNESOTA INDUSTRIES

Percent of Total Industry by Region

	Agriculture, Forestry & Fisheries	Mining	Construction	Manufacturing	Transportation, Communication & Utilities	Trade	Finance, Insurance & Real Estate	Services	Total Private	Total Government	Combined Total Regional %	Combined Total Number of Employees
Region 1	5.7%	.3%	1.4%	1.3%	1.4%	1.8%	1.0%	1.6%	1.5%	2.1%	1.6%	29,109
Region 2	2.0%		1.2%	.3%	.9%	1.0%	.4%	.9%	.8%	1.5%	.9%	16,179
Region 3	3.2%	87.9%	8.6%	4.4%	7.3%	6.4%	3.6%	6.3%	6.9%	8.8%	7.2%	126,017
Region 4	6.8%	.6%	4.1%	1.6%	3.8%	3.6%	2.2%	3.2%	2.9%	4.3%	3.1%	55,710
Region 5	2.1%	-	1.9%	1.4%	1.6%	2.0%	1.3%	2.2%	1.8%	3.0%	2.0%	34,955
Region 6E	7.8%	-	3.3%	2.5%	1.5%	2.3%	1.1%	1.4%	2.1%	2.6%	2.1%	38,318
Region 6W	1.3%	.3%	1.1%	.6%	.8%	1.1%	.7%	.7%	.8%	1.5%	.9%	16,631
Region 7E	1.9%	.1%	2.0%	1.3%	.9%	1.3%	.7%	1.1%	1.2%	2.0%	1.4%	24,315
Region 7W	5.3%	1.0%	4.8%	3.8%	4.0%	3.8%	2.1%	3.1%	3.6%	4.0%	3.7%	64,238
Region 8	3.4%	.3%	2.9%	2.3%	1.7%	2.7%	1.9%	1.8%	2.3%	2.9%	2.4%	41,727
Region 9	4.4%	1.8%	5.1%	5.9%	3.6%	4.8%	3.0%	3.6%	4.6%	4.3%	4.5%	79,849
Region 10	18.2%	2.7%	8.0%	10.5%	7.3%	8.0%	6.1%	10.4%	9.0%	7.7%	8.8%	154,598
Region 11	38.0%	4.1%	53.0%	63.7%	64.7%	58.3%	74.0%	62.2%	60.9%	52.8%	59.6%	1,041,920
UNATTACHED	-	-	2.2%	-	.6%	2.5%	.8%	.7%	1.2%	2.1%	1.8%	23,838
STATE TOTAL												
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Number of Employees	14,284	18,063	93,645	383,894	85,448	451,710	90,980	334,289	1,473,323	274,081		1,747,404

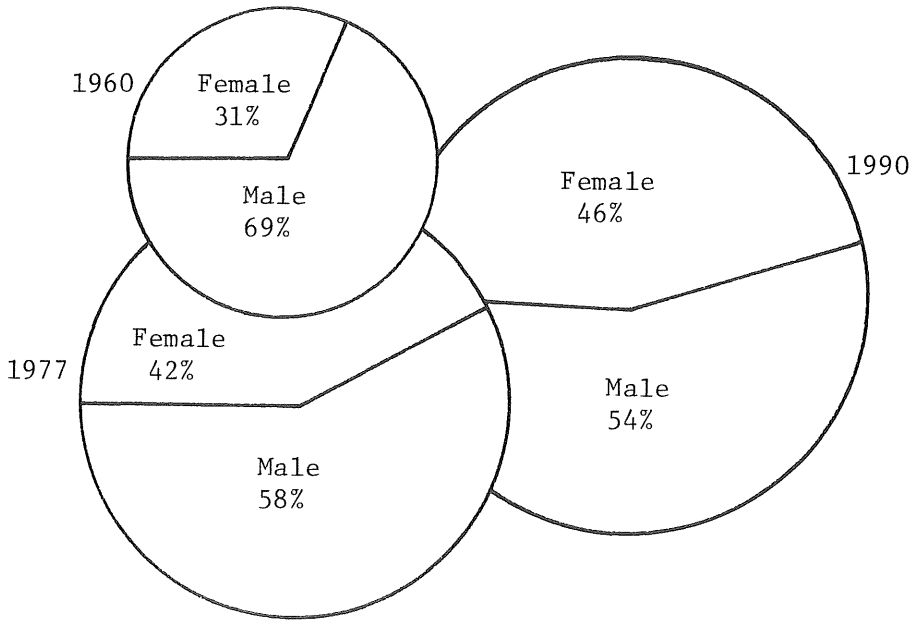
*This chart represents all employees in Minnesota covered by Unemployment Insurance. This is approximately 87.5% of the total State employees.

*Example: Region III, Mining with 87.9% employed means of the 18,063 mining employees in Minnesota, 87.9%, or 15,877, work in Region III.

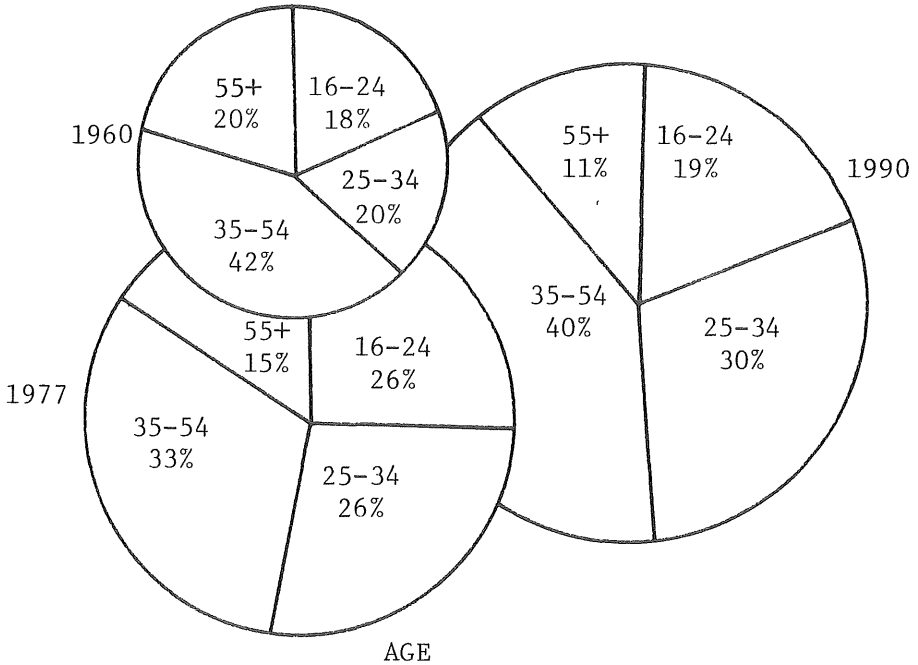
*Source: Department of Economic Security, Employment and Wages by County, Second Quarter 1979.

Exhibit 11

CHARACTERISTICS OF THE MINNESOTA LABOR FORCE, 1960 - 1990



SEX



AGE

Source: State Planning Agency/Planning for the Future, 1979

Exhibit 12

MINNESOTA LABOR FORCE BY SEXUAL COMPOSITION AMONG MAJOR INDUSTRIAL GROUPS

	Minnesota				
	Total, in thousands			Percent Distribution	
Industry by Sex	1970	1977	Percent Distribution of Change 1970-77	1970	1977
Total Employed Persons	1,464	1,735	100.0	100.0	100.0
Agriculture, etc.	111	166	20.5	7.6	9.6
Mining	14	16	0.8	1.0	0.9*
Construction	83	89	2.5	5.7	5.2*
Manufacturing	309	321	4.4	21.1	18.5
TCPU	96	96	-0.1	6.6	5.5*
Trade	323	377	20.0	22.0	21.7*
FIRE	68	86	6.7	4.6	5.0*
Services	405	505	37.0	27.7	29.2*
Business and repair	48	52	1.3	3.3	3.0*
Personal	55	71	5.9	3.7	4.1*
Ent., rec., prof.	302	383	29.8	20.7	22.1*
Public administration	56	78	8.3	3.8	4.5*
Total Employed Males	908	1,007	100.0	100.0	100.0
Agriculture, etc.	102	124	22.6	11.2	12.3*
Mining	13	15	1.9	1.5	1.5*
Construction	78	85	7.5	8.6	8.5*
Manufacturing	223	224	0.7	24.6	22.2*
TCPU	77	74	-3.0	8.4	7.3*
Trade	185	207	22.3	20.4	20.6*
FIRE	33	37	3.9	3.7	3.7*
Services	157	187	30.0	17.4	18.6*
Business and repair	33	35	2.1	3.6	3.5*
Personal	15	14	-0.5	1.7	1.4*
Ent., rec., prof.	110	138	28.4	12.1	13.7*
Public administration	40	54	14.1	4.4	5.3*
Total Employed Females	556	729	100.0	100.0	100.0
Agriculture, etc.	9	43	19.1	1.7	5.9
Mining	1	B	B	0.1	B
Construction	5	B	B	0.9	B
Manufacturing	86	98	6.7	15.4	13.4*
TCPU	19	23	1.8	3.5	3.1*
Trade	138	169	18.4	24.7	23.2*+
FIRE	35	49	8.2	6.3	6.7*+
Services	248	318	40.9	44.5	43.7*
Business and repair	15	17	0.8	2.7	2.3*+
Personal	40	56	9.5	7.1	7.7*
Ent., rec., prof.	193	246	30.5	34.7	33.7*
Public administration	16	25	5.2	2.8	3.4*+

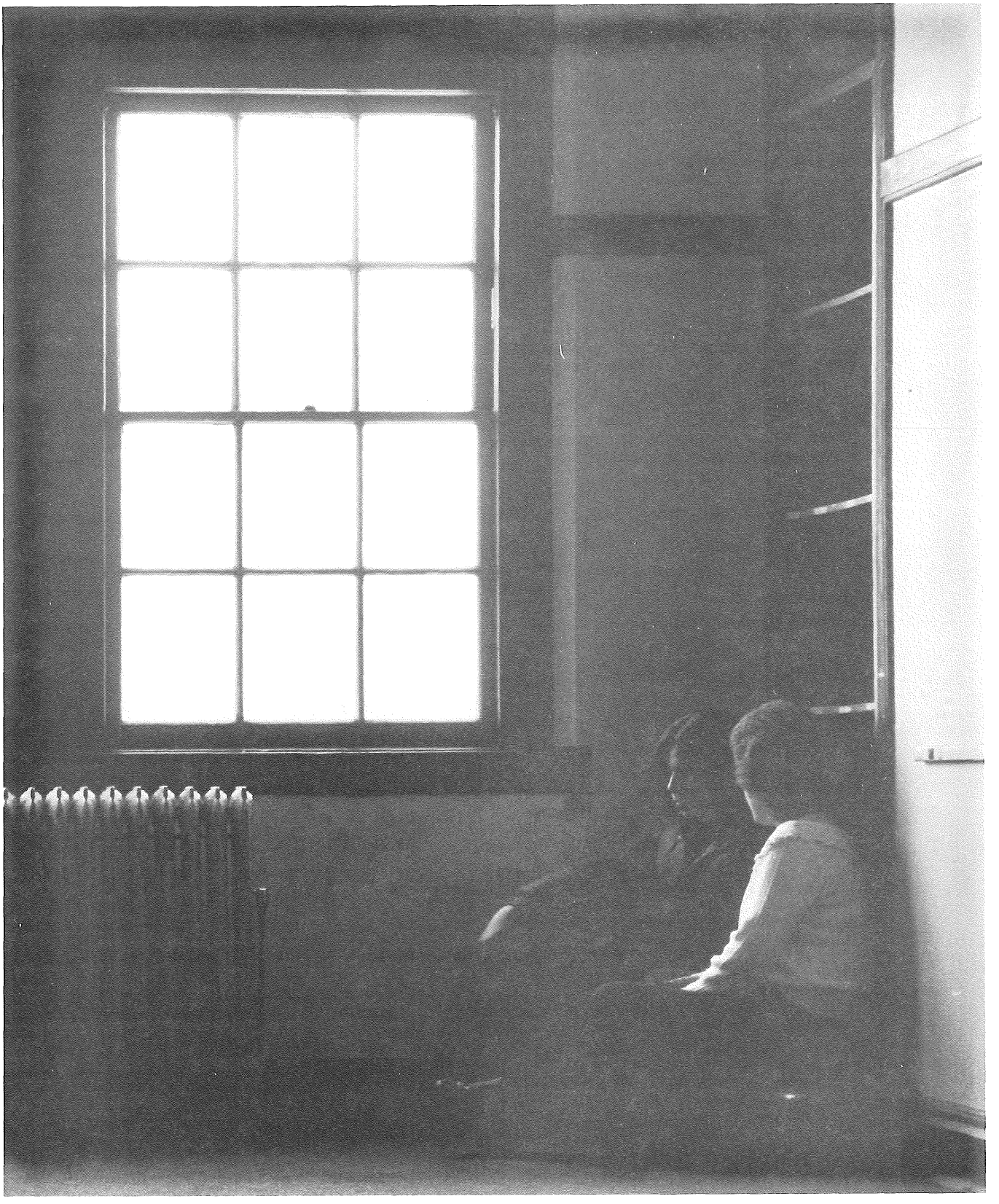
B = Insufficient base for computing percentages.

*No statistically significant difference measured between 1970 and 1977.

+No statistically significant difference measured between males and females in 1977.

Source: Office of the State Demographer/Employment in Minnesota.

Unemployment



UNEMPLOYMENT

Minnesota's 5.4% unemployment rate[1] is one of which Minnesotans can be proud. In the face of a national recession, this rate is well below the national average of 7.1%. The Twin Cities area, which employs over half of the state work force, has only 4.6% unemployment (Exhibit 13).

Minnesota holds this enviable position for six major reasons:

1. Diversity of economic base.
2. The unique nature of the labor force.
3. The state's greater orientation to the production and processing of agricultural products.
4. Minnesota's historic role as a trading center for the northwest.
5. Durable goods manufacturing in Minnesota being less weighted to consumer durables.
6. A higher concentration of high growth industries in Minnesota's manufacturing sector than that of the nation.

Each of these reasons is further expanded in other sections.

Regional and Industrial Unemployment Differences

To view the differences in regional and industrial unemployment in their proper perspective, the following, quoted from the 4th Quarter 1979 Review of Labor and Economic Conditions[2], gives excellent insight.

> Historically, some industries are more sensitive than others to national economic cycles. Swings in Manufacturing (especially durable goods), Metal Mining, Transportation, and Contract Construction activity are generally closely linked to swings in overall economic activity, whereas the Finance, Insurance, and Real Estate sector, along with Services, Public Utilities, and State and Local Government, suffer little or no effects of major contractions. In between these extremes, the Trade sector evidences moderate sensitivity to the business cycle. Although Minnesota's major industries pretty much reflect the aforementioned trends in cyclical behavior, the amplitude of the swings is often less pronounced. However, where the particular segment of an industry is heavily tied to national markets, the softening of demand is directly affected. Thus, because of a dampening in the demand for steel (largely due to weak automobile sales), the production of beneficiated (taconite) iron ore is being cut back. At this time, the outlook for growth in total and disposable personal income in Minnesota is clouded because of the uncertainty over the export

> market for feeder grains and wheat. Consequently, we feel that the growth in farm income will not match the 1979 rate unless alternate markets can be found. Increases in wages and the prevalence of high interest rates will, to some extent, cushion the impact of decline in farm income on a Statewide basis.

In light of these comments, it can be expected that specific regions strongly tied to a given industry will have unemployment rates that reflect the relative strength of that industry. Region 3, strongly tied to the steel industry, exemplifies this with a 10.4% unemployment rate (Exhibit 4-3). Region 1, strongly tied to agriculture and the snowmobile industry, has a 7.3% unemployment rate, mostly as a result of poor weather conditions, i.e., lack of snow and rain, and high interest rates. It also can be surmised that a region with a well diversified base would not be as strongly affected by a decline in a particular industry. Region 11, even with 2,200 unemployed at the Ford plant in St. Paul, still has an overall unemployment rate of 4.6%. When contrasted with Michigan, the advantages of diversification become evident. Weaknesses in a particular industry (such as mining) when concentrated and predominant in a region, will determine the unemployment rate for that region, as seen in the Region 3 unemployment rate of 10.0%.

Other Differences

In addition to unemployment discrepancies between industries, there are substantial discrepancies among individual groups.

The greatest unemployment in Minnesota occurs among the young, unmarried, and less educated. For example, while the overall state unemployment rate is low, the demographer's 1977 report[3] indicated those under age 24 had an unemployment rate of 13.8% and comprised more than 50% of all unemployed. The unemployment rate for the unmarried was also very high at 12.4%, and finally, those with less than 12 years of education were more than twice as likely to be unemployed compared to those completing 12 years.[3] Recent information which categorized those people receiving unemployment benefits during the week of October 12, 1980, would indicate this situation still prevails as 29% of all such recipients were under age 25 and 71% of all recipients had less than 13 years of education.

When reviewing the major characteristics of the unemployed in Minnesota--young, unmarried, and less educated--it is obvious that only the educational gap can be effectively reduced. However, improvements in this area will be difficult in light of the excellent record of the present educational system. High school completion in Minnesota in

1971 was 92.4%, the highest in the nation, and in 1979, 87% of all high school graduates continued with advanced education. (See Education Section).

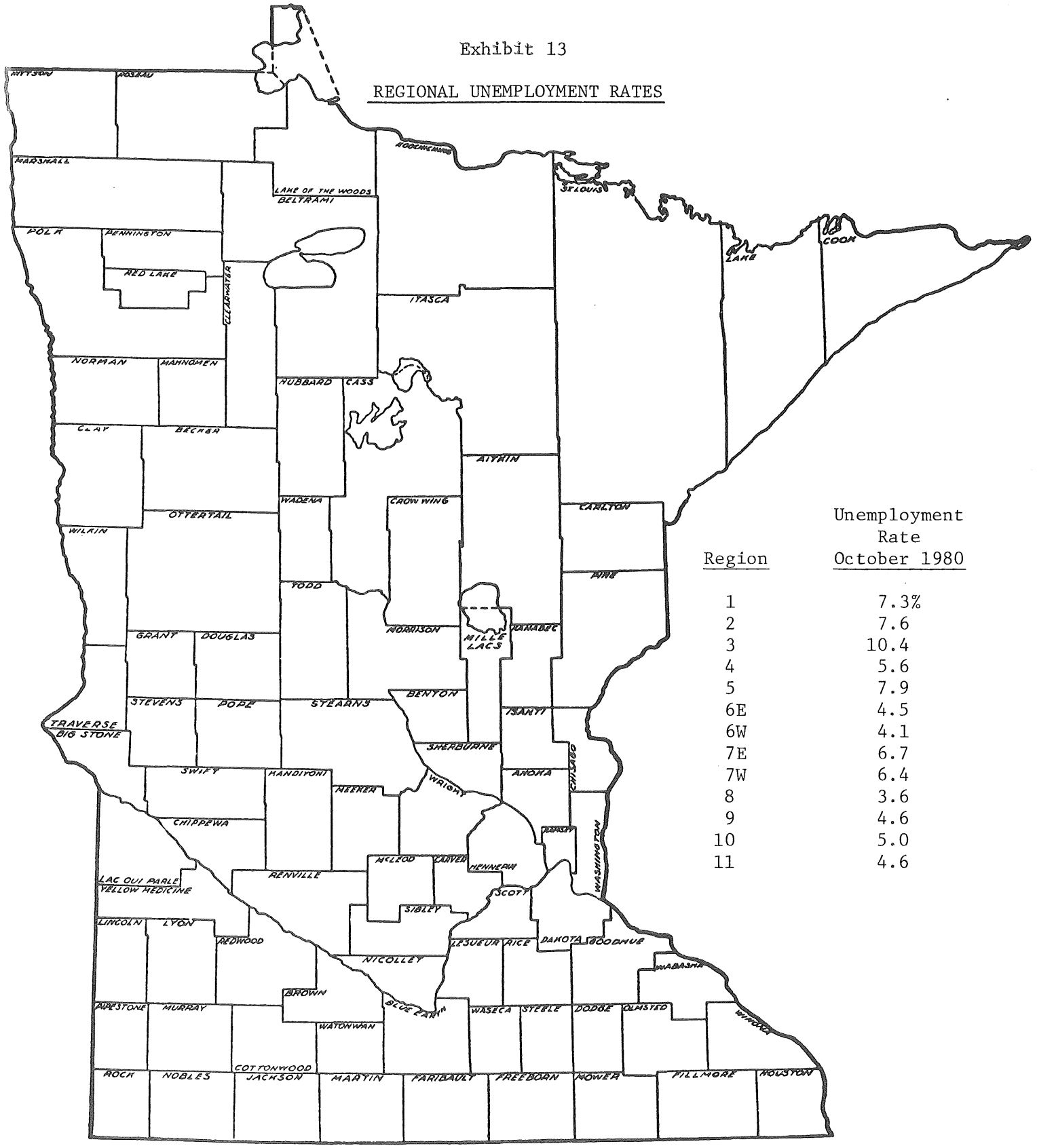
Due to the diversity of the Minnesota economy, complex and integrated solutions to unemployment will be required. Well planned programs which address both regional development of the economy and concomitant development of individual skills for the labor force are needed.

Footnotes

1. Research and Statistical Services Office, Minnesota Bureau of Employment Security, December 1980 Report.
2. Minnesota Bureau of Employment Security, Review of Labor and Economic Conditions, 4th Quarter 1979.
3. Minnesota Unemployment Rate for all persons at the time of the report was 6.9%. State Planning Agency, Employment in Minnesota 1977.

Exhibit 13

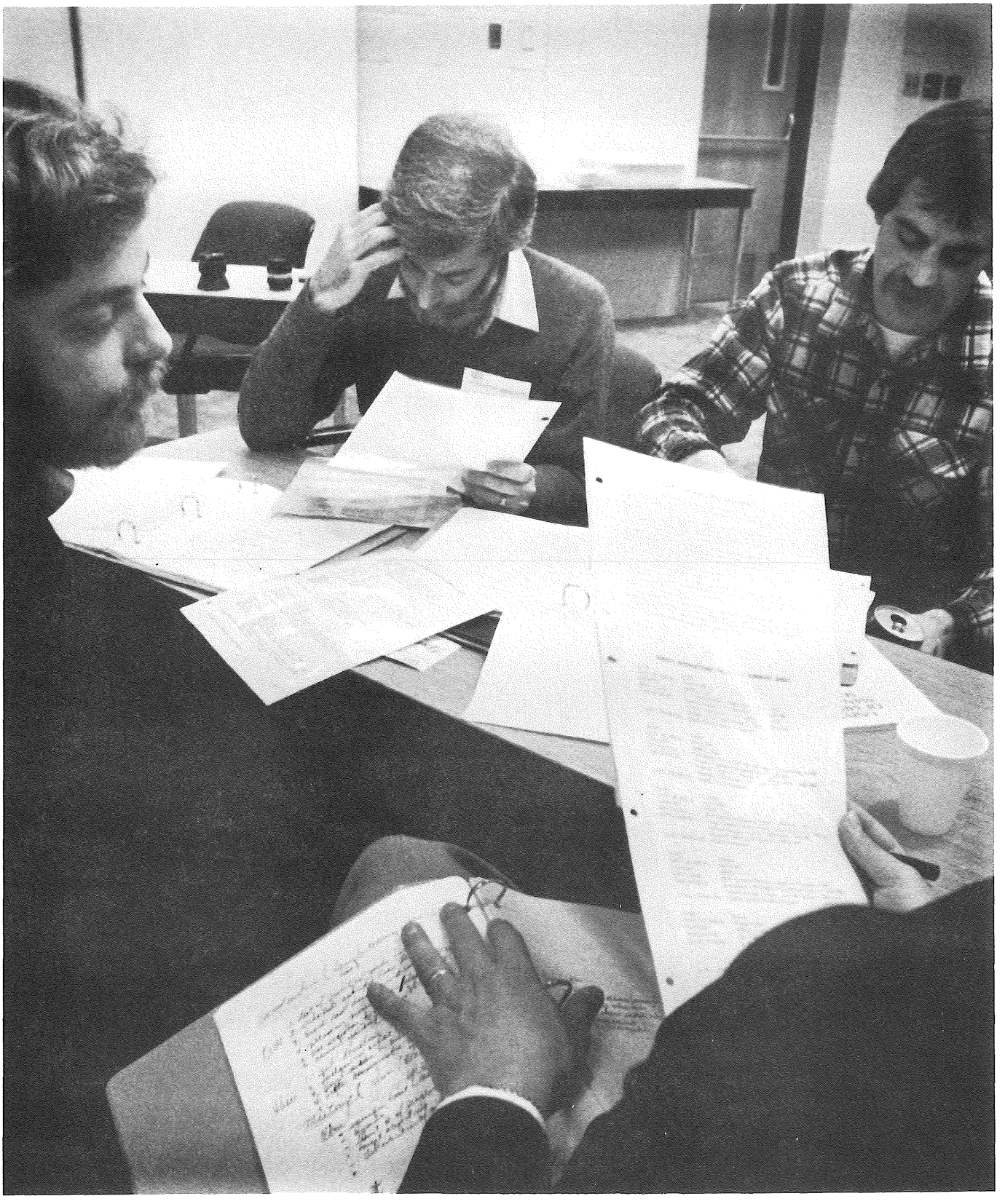
REGIONAL UNEMPLOYMENT RATES



Region	Unemployment Rate October 1980
1	7.3%
2	7.6
3	10.4
4	5.6
5	7.9
6E	4.5
6W	4.1
7E	6.7
7W	6.4
8	3.6
9	4.6
10	5.0
11	4.6

Source: Minnesota Bureau of Employment Security

Education



EDUCATION

For any business considering locating or expanding in the state, the educational facilities in Minnesota should be considered major training grounds for the labor force. As with any business, the higher the quality of resources and production processes, the higher the quality and worth of the final product. Minnesota's educational facilities have steadily increased the quality of their educational product, and over 87% of 1979 high school graduates now attend post-secondary education institutions (see below). Clearly, the caliber of Minnesota's labor force is steadily increasing.

Percent of Minnesota High School Graduates Entering Post-Secondary Institutions in 1979
Total High School Graduates: 71,350

Institution	Percent
State Universities	10.93
Community Colleges	20.96
Area Vocational-Technical	26.72
University of Minnesota	11.75
Private Non-Collegiate	3.10
Private Junior Colleges	1.01
Private Four Year Colleges	12.54
Total	87.01%

Source: Minnesota Higher Educational Coordinating Board.

Private and public investments in education provide a double benefit to Minnesota business. First, a more intelligent individual will be available to the labor force and, second, a portion of the cost of training is paid outside of the business organization. This can be exemplified by considering that 26% of recent high school graduates went on to attend vocational-technical schools. Training in these schools is for the most part totally job related. Therefore, graduates of these programs enter the labor force prepared to go to work, needing only limited corporate indoctrination. The extensive statewide network of educational facilities also insures that no region is without high quality training facilities (Exhibit 14).

Educational Attainment of Minnesotans

Exhibit 15 portrays the educational levels of Minnesotans by age and sex. What is clear is that the baby boom generation, the 24-34 year olds, are the most highly educated group in Minnesota's history.

Further analysis of Exhibit 15 shows that although male

college graduates outnumber female college graduates, both sexes have had marked increases in the percent of college graduates during the period 1970-1977. To Minnesota business, this means that the nature of the labor force will continue to change, particularly in the area of increased proportions of managerial and technical positions for women. Increases in educational level always raise aspiration levels. Therefore, it is most likely that as women continue to increase their educational levels, the rapid transformation in the sexual composition of the labor force will continue to occur.

A Free Training Program for Minnesota Business

The Minnesota Department of Economic Development (DED) in cooperation with the Vocational-Technical Division of the Department of Education, inaugurated a "New Jobs Training Program" designed to meet specific manpower demands of individual new or expanding industries, providing the required trained manpower needs at the particular locations and times needed.

The New Jobs Training Program provides free short-term (30-180 hours) training to 10 or more individuals under one job title where a company and DED certify a need for training. Training may take place in one of Minnesota's Area Vocational-Technical Institutes (AVTIs), in a firm's plant, in a high school center, or in rented facilities.

The Vocational-Technical Division pays 100% of salary and reasonable supply costs and will furnish, as necessary, equipment and space. In many instances, it is more feasible to utilize a company's equipment and space. A firm may be asked to provide scrap or scrappable materials to make training as realistic as possible.

In developing the program, DED and the Vocational-Technical Division are making every attempt to adapt existing manpower programs and systems to meet problems as they arise and to work closely with and through Minnesota's excellent AVTIs wherever possible.

The New Jobs Training Program is based on the idea that industrial training programs geared specifically to a company's needs could help ease the management problems of finding competent skilled labor, resulting in highly skilled employees trained in less time and at less cost to industry. Stressing the advantages of cooperating with Minnesota's AVTI system, DED's manpower program emphasizes that identifying existing programs and training facilities that can be used to meet these special industry needs is just as important

as developing new programs and facilities as circumstances dictate.

DED's ultimate objective is the development of an ongoing system for coordinating state and local capabilities--including local economic and community development components--with industry needs by committing specific services to attract new industry and hold expansions within the state. This involves training workers for exactly the skills they need for job entry level with a particular company.

The program has already met with success for the following:

Forty trained machine operators for an air cooled engine plant,

Eighty sewing machine operators for a new outerwear plant,

Thirty meat cutters for a new meat packing plant, and

Sixty trained workers for a new minority-owned enterprise in the urban core.

A curriculum writer and any other expertise required can be made available where the need is indicated. Free assistance in planning long-range upgrading programs and supervisory training is also available. For further information, contact the Minnesota Department of Economic Development, 480 Cedar Street, St. Paul, Minnesota 55101, (612) 296-1368[1].

Conclusion

Minnesotans are educationally well prepared for the 1980s. Increasing proportions of high school graduates are attending and graduating from post-secondary educational facilities. The sex composition of those attending and graduating from post-secondary educational facilities is changing. More women than ever are obtaining college degrees and as a result they are increasing their roles in previously male positions of responsibility[2]. This trend is likely to continue for three major reasons: (1) large quantities of financial aid are available for all students, (2) the numbers of students entering post-secondary educational facilities is decreasing and as such these institutions will be increasing competition for students, (3) increased social and governmental pressures are being put on business and all potential members of the labor force are experiencing increased social awareness and aspirations.

In conclusion, it can be seen that regardless of how rapidly or in which direction Minnesota's business economy evolves, the Minnesota education facilities will be prepared to provide a labor force which will have the necessary skills to allow continued progress in Minnesota.

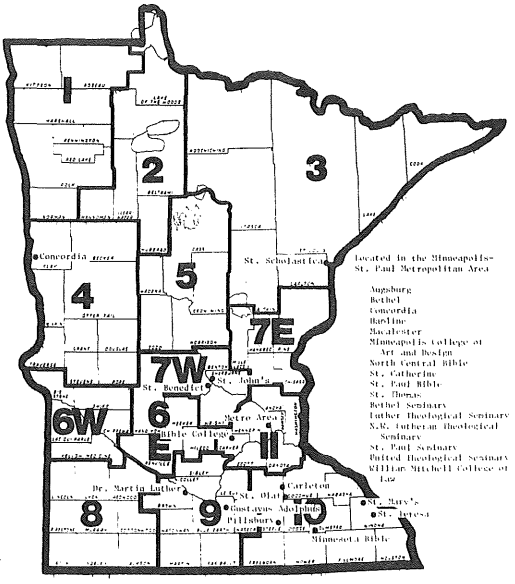
Footnotes

1. Minnesota Department of Economic Development, Minnesota Statistical Profile 1978.
2. Minnesota State Planning Agency, Minnesota Labor Force, 1977.

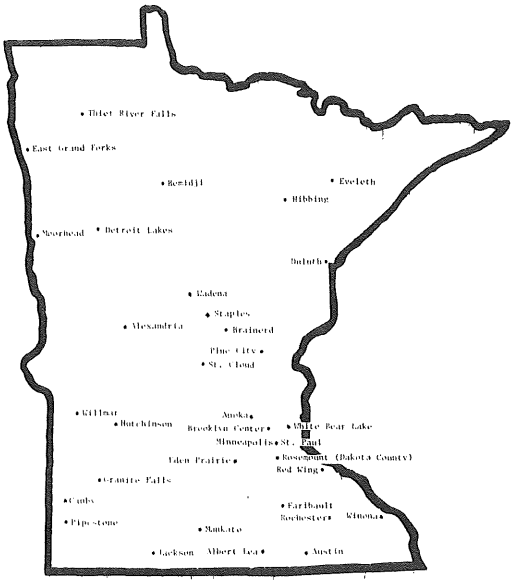
Exhibit 14

STATEWIDE POST-SECONDARY EDUCATION NETWORK

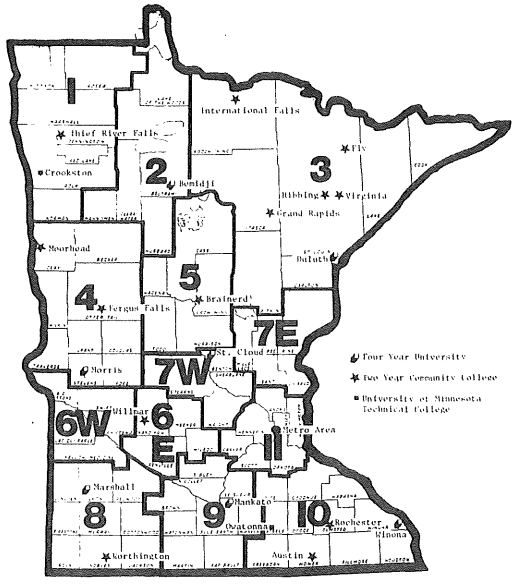
Private Colleges and Professional Schools



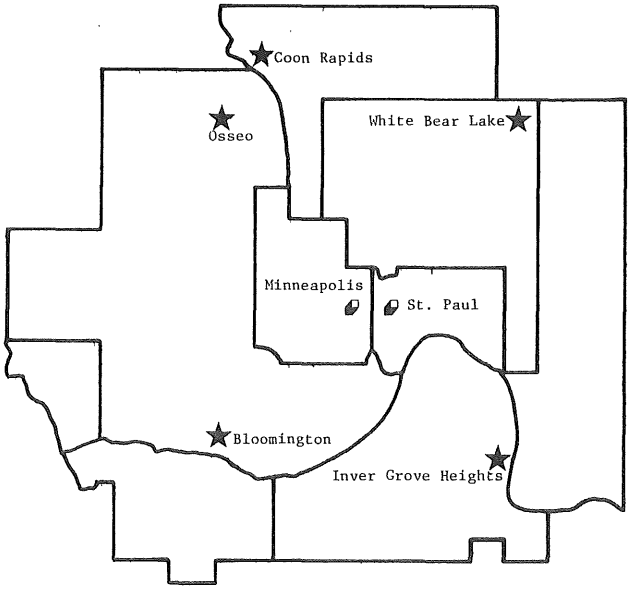
Area Vocational-Technical Institutes



Public Colleges and Universities



Minneapolis/St. Paul Metropolitan Area



Source: Minnesota Statistical Profile 1979

Exhibit 15

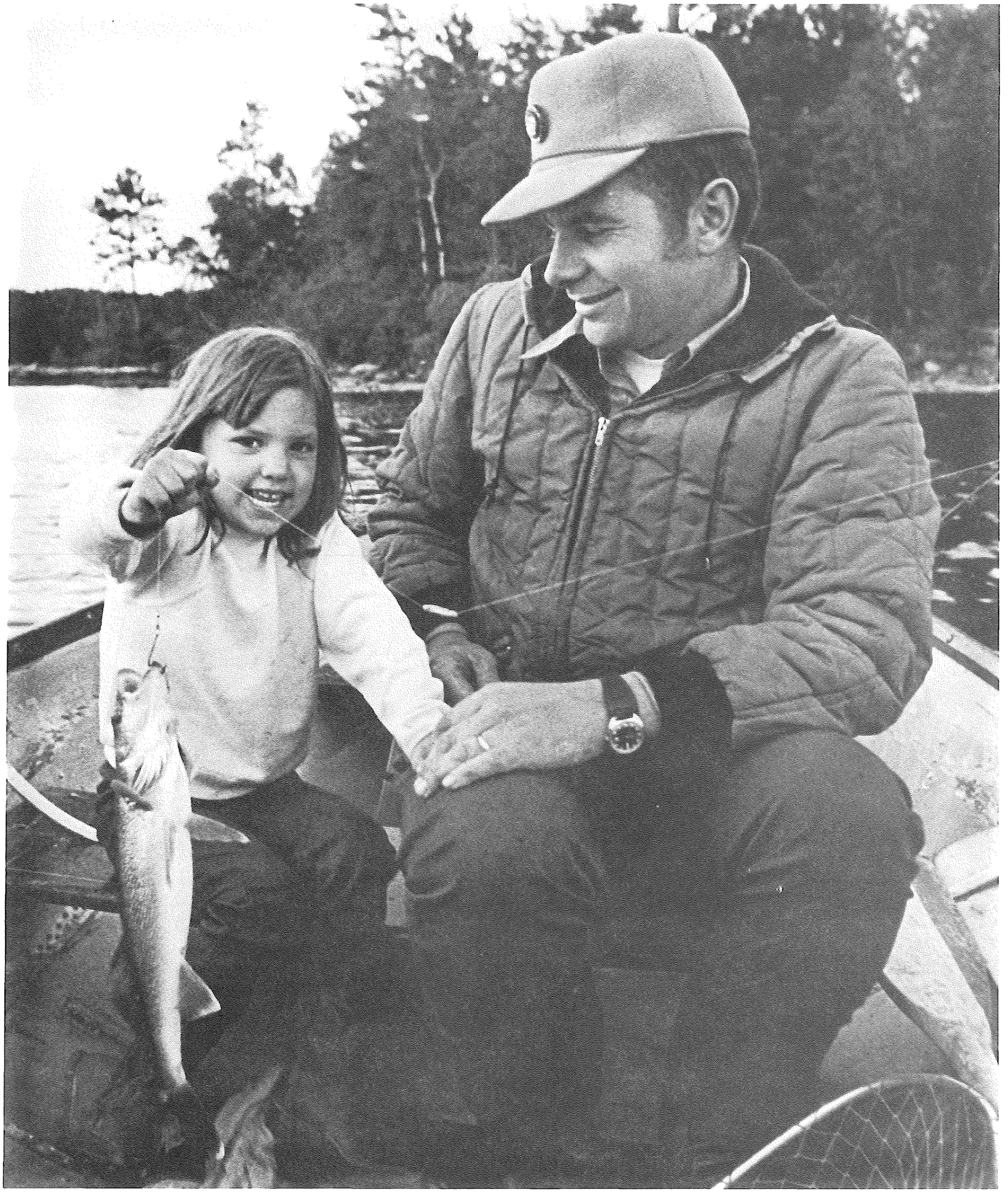
EDUCATIONAL ATTAINMENT IN MINNESOTA
BY AGE AND SEX GROUP

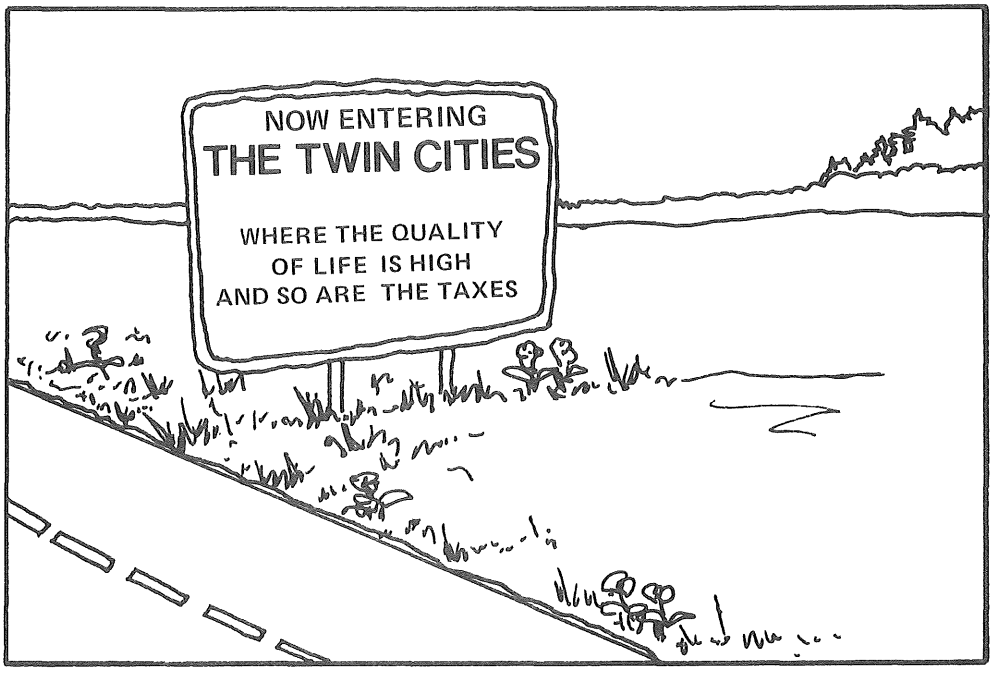
Age, Sex and Year	Total in Thousands	Total	Less than 12 years	12 years	13-15 years	16 years or more
Total, 25 and over						
Total						
1970	1,990	100.0	42.4	34.5	12.0	11.1
1977	2,207	100.0	30.4	39.3	13.7	16.7
25 to 34 years						
1970	455	100.0	16.4	49.2	16.2	18.2
1977	605	100.0	6.9	45.3	21.9	25.9
35 to 44 years						
1970	397	100.0	28.4	44.3	12.8	14.4
1977	406	100.0	16.5	50.1	13.1*	20.4
45 to 64 years						
1970	729	100.0	48.0	32.3	11.2	8.4
1977	744	100.0	36.1	40.2	10.6*	13.2
65 and over						
1970	409	100.0	74.9	12.7	7.7	4.8
1977	452	100.0	64.9	20.0	8.4*	6.8
Males, 25 and over						
Total						
1970	957	100.0	45.6	30.2	10.4	13.8
1977	1,053	100.0	32.0	34.8	12.8	20.4
25 to 34 years						
1970	226	100.0	17.7	44.0	16.0	22.3
1977	302	100.0	6.9	41.4*	21.5	30.2
35 to 44	197	100.0	32.3	37.2	11.4	19.1
1970	197	100.0	32.3	37.2	11.4	19.1
1977	202	100.0	17.3	46.3	11.2*	25.2
45 to 64 years						
1970	356	100.0	53.3	27.7	9.0	9.9
1977	362	100.0	41.1	33.0	9.7*	16.1
65 and over						
1970	178	100.0	80.4	9.8	5.0	4.8
1977	187	100.0	70.8	15.6	6.1*	7.5
Females, 25 and over						
Total						
1970	1,033	100.0	39.5	38.5	13.4	8.6
1977	1,155	100.0	28.9	43.3	14.5*	13.3
25 to 34 years						
1970	229	100.0	15.1	54.4	16.4	14.1
1977	303	100.0	7.0	49.1	22.2	21.7
35 to 44						
1970	199	100.0	24.5	51.3	14.3	9.9
1977	204	100.0	15.6	53.8*	14.9*	15.6
45 to 64 years						
1970	374	100.0	43.1	36.6	13.3	6.9
1977	382	100.0	31.3	47.0	11.3*	10.3
65 and over						
1970	231	100.0	70.6	14.9	9.7	4.7
1977	255	100.0	60.7	23.1	9.9*	6.3*

*No statistically significant difference measured between 1970 and 1977.

Source: Minnesota State Planning Agency

Quality of Life





Reprinted from Twin Cities Reader by permission of artist David Jacobson

The above cartoon[1], though directed toward the Twin Cities, applies to the entire state as well. Numerous national studies by public and private organizations such as the Midwest Research Institute and the Urban Institute consistently reaffirm the outstanding quality of life in Minnesota[2].

Quality of Life: What Is It?

Quality of life is a nebulous term. In Minnesota it could mean a political system amazingly free of corruption which may account for (or be a result of) the highest voter turnout in the nation. Or, it could mean the best health care facilities in the nation available to all residents which may account for the well below national average employee absentee rates. Or perhaps it is the strong interest business has towards social and economic development in the state, such as 3M's outstanding energy conservation programs, or business investments of 1 billion dollars currently and 1 billion more on the drawing boards just in the Twin Cities downtown areas. These are all areas often included in quality of life. Other indicators of the quality of life are the lowest high school dropout rate in the country, the highest non-white median school year completion rate in the nation, and consistently high rankings on armed forces mental exams. Many people, however,

consider the cultural aspects most important. More people attend major cultural events in the Twin Cities than attend major league baseball and football games combined. There are also more theater goers per capita in the Twin Cities than in New York City. Minneapolis is also first among central cities in newspapers read per household.

A unique asset to Minnesota's quality of life is the climate. To capsulize the climate one need only say it is warm in the summer, average July temperature 73°F, and cold in the winter, average January temperature 14°F. This range of temperature allows for all summer and winter sports. Also, the cold weather does not affect public and private services. The Twin Cities airport's closure rate due to poor weather is one of the lowest in the United States. In addition, the skyway system of the Twin Cities, which allows easy climate controlled access between buildings, is the most innovative network of its type in the country. The list of positive assets of the state could go on for pages.

The Price of High Quality of Life

The first rule of economics has always been "there is no such thing as a free lunch". Consequently, to enjoy the high level of services and facilities available to Minnesotans, a price must be paid. This price is paid primarily by the highest state income tax in the country. Another indication of the price of the quality of life is the Consumer Price Index. In a recent survey to determine relative costs of living by the Department of Commerce, Minneapolis was rated 18th of 208 cities, though most out-state areas did have lower indices.

Summary

When considering business location decisions, quality of life is becoming increasingly important. Key employees are refusing promotions that require moving from desirable areas. With Minneapolis recently rated as one of the top three most popular work locations in the United States by a national association of MBA executives[3], it can be a wise business decision to locate in Minnesota. Perhaps even more conclusive in proving job satisfaction of the majority of Minnesotans is a job satisfaction survey done in 1977 by the Institute for Social Research. To summarize, 6.3% of Minnesotans reported dissatisfaction with their present job compared to 11.6% nationally.

The quality of life in Minnesota is obviously well above the rest of the United States. This has been verified by numerous non-Minnesotan evaluators. Educationally, socially, governmentally, and culturally, Minnesota is a national leader. To maintain these high standards requires equally high financial bases. Business and individuals pay to

continually improve standards to the benefit of both. Individuals receive desired services and business receives higher caliber employees.

Quality of life in Minnesota can be summed up by stating the second law of economics: "You get what you pay for". Minnesotans want, pay for, and receive the best in quality of life services.

Footnotes

1. Drawing Courtesy of the Artist David Jacobson. Twin Cities Reader, 1980.
2. Midwest Research Institute 1975 ranked Twin Cities 5th of 224 cities, Urban Institute 1972 ranked Twin Cities 1st of 17 large metropolitan areas.
3. Minneapolis Star, July 15, 1980.

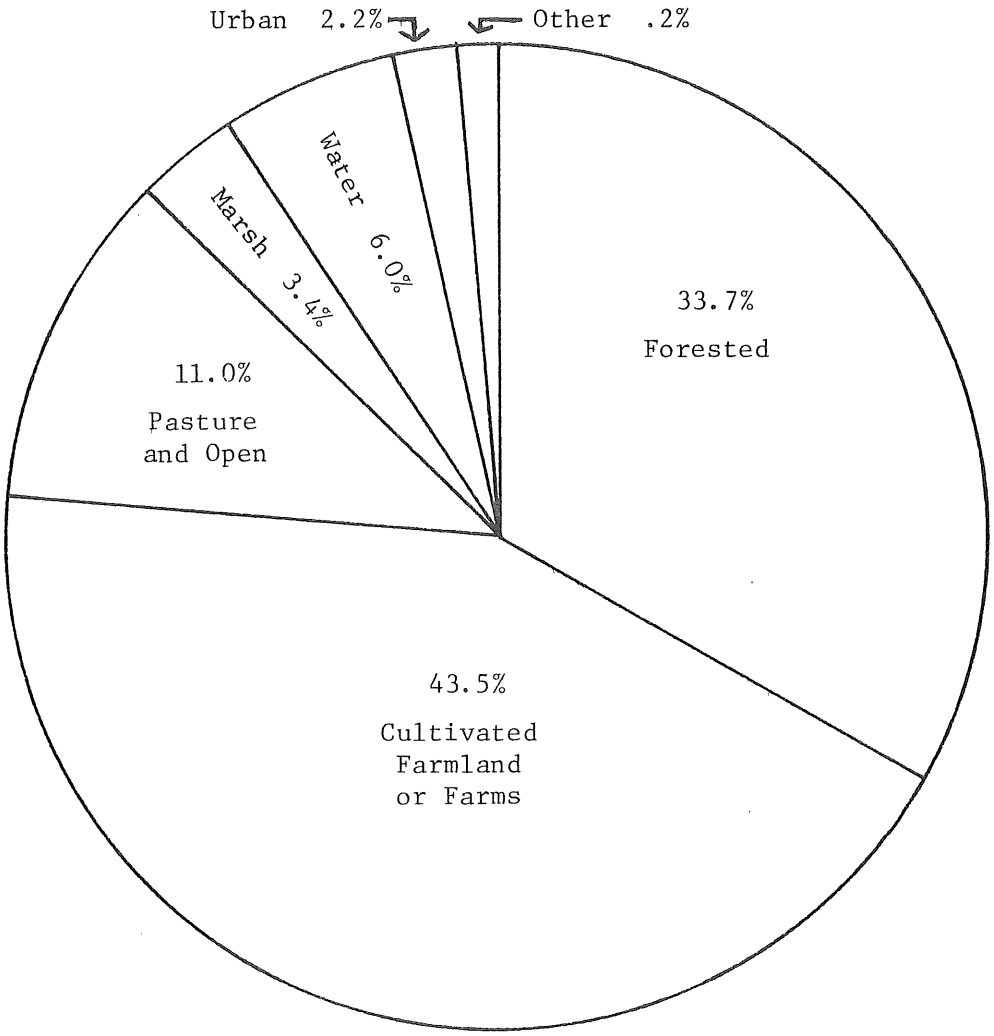
Land Usage

LAND USAGE

Minnesota has 84,068 square miles of land within its boundaries. On a regional level this land is used primarily for farming in all but regions 2, 3, 5, and 7E, where the land is basically a source of forest products. Region 3, long identified as the iron ore range, uses less than one percent of its land for mining and over 80% for cultivation and forestation. Even in the Twin Cities area, Region 11, over 50% of the land is farmed or forested. A review of exhibits 16 and 17 will show this prevalence of cultivated and forested land in Minnesota. Hence one can conclude Minnesota is a state where business can grow.

Exhibit 16

LAND USAGE IN MINNESOTA[1]



Land Use	Acres	Percentage
Cultivated	23,743,360	43.5%
Forested	18,384,800	33.7%
Pasture and Open	6,013,280	11.0%
Water	3,293,960	6.0%
Marsh	1,867,200	3.4%
Urban	1,194,120	2.2%
Other*	115,120	.2%
Total	54,611,840	100.0%

1. Source: Minnesota Statistical Profile 1978.

*Other is composed of Extractive (Mining) and Transportation (Highways, Railways, etc.).

Exhibit 17

LAND USE BY REGION

Percent of State Total Land Per Usage

	Region													Total (000,000) Acres
	1	2	3	4	5	6W	6E	7W	7E	8	9	10	11	
Total Acres in Region (000,000 Acres)	5.4	4.8	13.0	5.6	4.0	2.2	1.9	1.9	2.3	3.8	3.4	4.4	1.9	54.6
Percent of State Total Land	9.9	8.8	23.8	10.2	7.3	4.0	3.5	3.5	4.2	7.0	6.2	8.1	3.5	State Total 100%
Usages:														
Forested	3.6	13.1	56.2	3.8	11.0	0.2	0.4	1.4	5.7	0.1	0.7	3.2	1.2	
Cultivated	16.4	2.6	1.0	15.4	3.2	7.7	6.4	4.0	1.8	14.0	12.1	12.3	3.5	
Pasture and Open	9.8	4.8	10.1	10.6	11.2	4.2	3.3	9.5	9.4	5.7	3.5	12.2	6.3	
Water	1.4	22.2	37.2	11.4	11.1	1.2	2.3	2.1	3.1	1.3	2.3	2.3	2.8	
Marsh	14.9	37.1	20.0	5.1	6.5	1.2	1.9	1.8	5.3	0.7	1.6	1.1	3.4	
Urban and Residential	2.1	4.8	19.4	9.4	12.3	0.8	2.3	6.6	3.8	1.7	3.1	6.3	27.9	
Urban Mixed	3.3	1.3	12.6	6.5	4.5	3.5	4.1	9.4	3.3	6.6	7.9	11.7	30.7	
Extractive	5.0	0.8	73.9	3.9	4.7	1.0	1.0	1.0	0.4	1.5	1.2	2.8	3.5	
Transportation	10.8	6.4	20.6	7.8	5.4	2.6	1.5	3.3	0.9	4.2	4.6	11.5	20.9	

Source: Center for Urban and Regional Affairs

Section III
Costs of Business

Energy

ENERGY

In terms of energy costs, Minnesota is currently a very competitive state in which to do business.

In a recent survey, Minnesota was ranked 18th of 26 states when comparing total energy operating costs for a hypothetical plant[1]. Nearly all of the state's energy is derived from sources outside the state, though new energy sources are relatively abundant within the state and are a potential source for many new businesses. Recent estimates from the Minnesota State Planning Agency indicate that over 75% of the state's energy is used for transportation, industrial, and residential uses with natural gas and motor fuels as the two most common forms of energy (see Exhibit 18). Nuclear power currently used as an energy source will become increasingly important as demands for energy grow. The use of nuclear energy is increasing in Minnesota; however, it still provides little of the state's energy needs.

To meet present and future energy needs, Minnesota will need to insure reliability of present energy sources in the short run and develop its potential energy sources for the long run. Research and development of the state's nonconventional energy sources will serve the dual purpose of increasing energy supplies for Minnesota as well as creating new businesses and jobs for Minnesotans.

Energy Costs for Business in Minnesota

Costs of energy for business in Minnesota are relatively low. In a study completed in October 1979, the Minnesota Business Partnership compared electrical, natural gas, and number 2 fuel oil costs in Minnesota with 25 other states. Minnesota ranked 18th in electrical costs, 20th in natural gas costs, and 12th in number 2 fuel oil costs. In addition, the energy costs of a hypothetical plant in a southern Minnesota town were compared to the energy costs of the same plant located in the other 25 states. Minnesota ranked 18th in total annual operating costs[2]. (See Exhibit 19).

Minnesota's Current Energy Sources

Currently, over 99% of the state's energy is derived from sources outside of Minnesota. Exhibit 18 shows Minnesota's current energy sources and energy demand by sector. Clearly, the state is heavily dependent on fossil fuels, none of which come from Minnesota. However, Minnesota does have some potential energy resources which may help maintain affordable energy for individual and business concerns.

Minnesota's Potential Energy Resources

The fact that over 99% of the state's energy is derived from sources outside of Minnesota may at first glance paint a dim picture of the state's energy resources. However, the state does have relatively abundant alternative energy resources. In the short term, solar and wind are resources which can be readily utilized with existing technologies and are already economically attractive in many situations. In the longer term, district heating and a rich biomass potential can provide a significant portion of Minnesota's energy needs. Major biomass resources include special energy crops such as cattails and conventional crop residues. Biomass energy sources with lower potential include conventional agricultural crops, wood, over 7 million acres of peat, urban solid wastes and farm animal wastes[3]. In addition to these energy resources, exploration for uranium currently is occurring in Regions 3 and 7E, statewide mineral leases for exploration of 50,000 acres have been recorded and approximately 20,000 additional acres of unrecorded leases reported.

Minnesota's easy access to the large deposits of low-sulphur coal of Wyoming and Montana has stimulated renewed interest and research with this resource. ("The Minnesota Energy Agency predicts that coal use in Minnesota will nearly double from a little more than 13 million tons currently to more than 25 million tons by 1985 and perhaps triple to 37 million tons in 1995[4]."") Gasification of coal is a new technology which may provide a source of "clean" energy to Minnesota. Currently, tests are being done by the Bureau of Mines and others to determine the adaptability of gasified coal to the taconite industry. The use of coal, whether in its pure or gasified state, will greatly increase in Minnesota. Much of this increase will be a result of companies converting from natural gas to coal. Technical, economic, and environmental constraints will determine the extent to which these estimates are accurate.

In addition to producing energy from these sources, the Minnesota Energy Agency estimates that a 19-29% reduction in energy consumption could occur through serious conservation efforts.

Summary

Minnesota is currently an energy costs competitive state. However, since nearly all of its energy is now derived from outside the state, research and development of the state's own potential resources must be done. It appears probable that many new businesses will develop in the energy field with products ranging from weather-stripping installers to coal gasification. In addition, other energy sources such

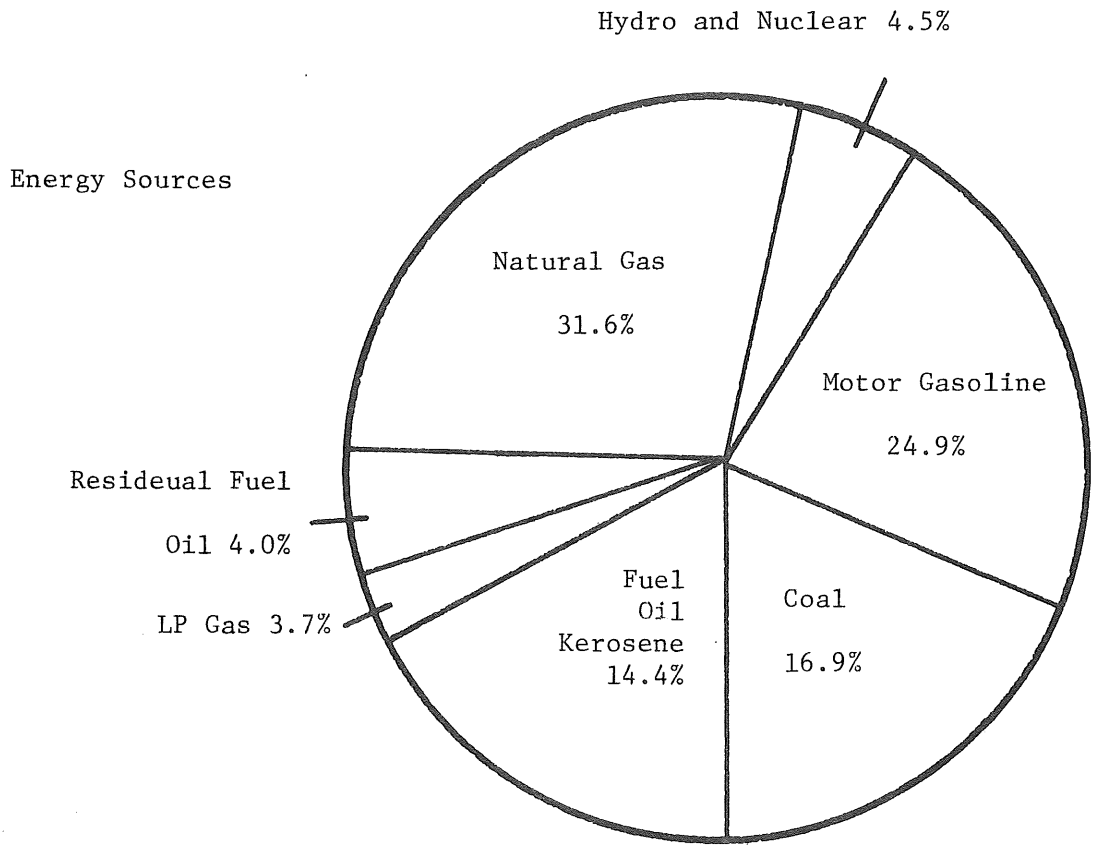
as wind and solar power and biomass fuel sources will become economically feasible as conventional energy costs rise. In conclusion, it is probably an overstatement to say the future of Minnesota's business is dependent on how it develops energy sources and resources, but it is very near the actual situation.

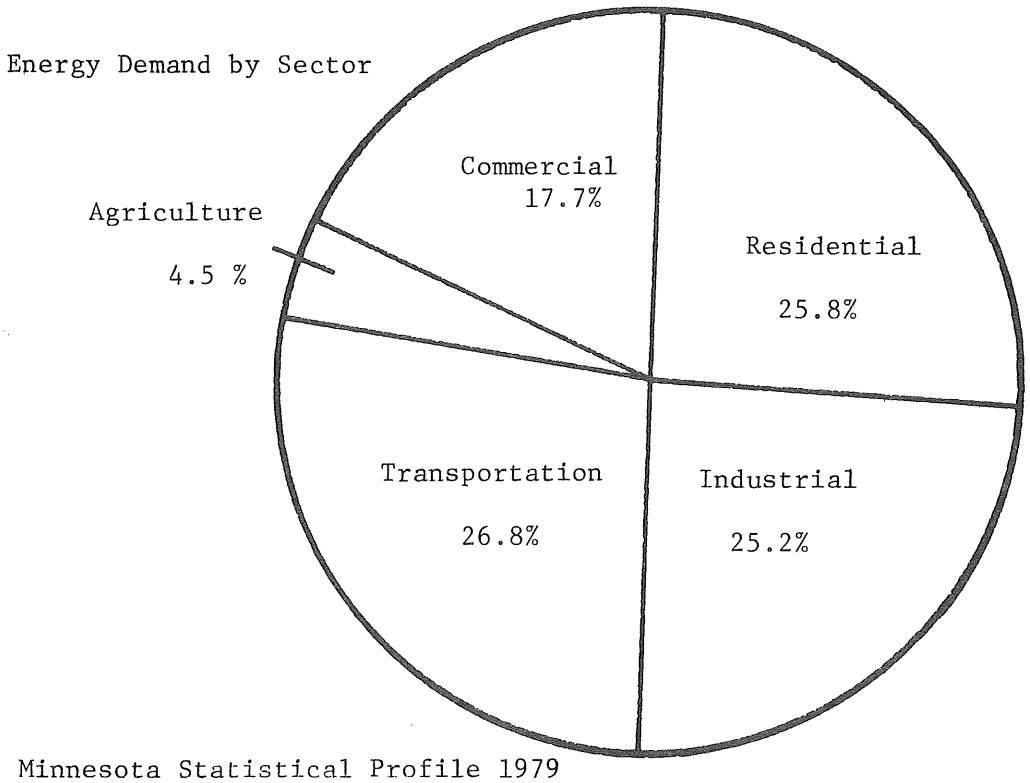
Footnotes

1. The hypothetical plant was defined as 200,000 square feet using 232,000 b.t.u. per square foot per year and engaged in light manufacturing and assembly operations with 8,000 yearly operating hours in a town of 15,000 population.
2. Minnesota ranked 7th in annual heating costs, 22nd in annual cooling costs, 22nd in annual fan operating costs, 18th in lighting costs, 18th in process electrical costs, and 14th in capital costs for energy systems.
3. Minnesota State Planning Agency, Planning for the Future, 1979.
4. U.S. Department of the Interior, Bureau of Mines, Minerals in the Economy of Minnesota.

Exhibit 18

MINNESOTA ENERGY SOURCES AND DEMAND CHARACTERISTICS





Source: Minnesota Statistical Profile 1979

Exhibit 19

COMPARATIVE ENERGY COSTS

Fuel Oil

Comparative Analysis: Cost of #2 Fuel Oil
October 1979

Rank	State	$1 per BTU	Ratio
1	Iowa	6.42	1.12
2	New York	6.13	1.07
3	North Dakota	6.07	1.06
4	Arizona	6.00	1.05
5	California	6.00	1.05
6	Maine	5.99	1.05
7	New Hampshire	5.99	1.05
8	Pennsylvania	5.99	1.05
9	Massachusetts	5.92	1.04
10	South Dakota	5.92	1.04
11	South Carolina	5.85	1.02
12	Minnesota	5.71	1.00
13	Florida	5.70	1.00
14	Missouri	5.68	.99
15	Colorado	5.63	.99
16	Illinois	5.50	.96
17	North Carolina	5.44	.95
18	Georgia	5.43	.95
19	Wisconsin	5.43	.95
20	Arkansas	5.35	.94
21	Kansas	5.28	.92
22	Oklahoma	5.28	.92
23	Alabama	5.13	.90
24	Louisiana	5.13	.90
25	Nebraska	5.13	.90
26	Texas	4.64	.81

Natural Gas

Comparative Analysis: Cost of Natural Gas
October 1979

Rank	State	$1 per BTU	Ratio
1	New York	4.82	1.85
2	North Dakota	4.26	1.64
3	Massachusetts	4.25	1.63
4	South Carolina	4.03	1.55
5	New Hampshire	4.00	1.54
6	North Carolina	3.60	1.38
7	Illinois	3.50	1.35
8	Pennsylvania	3.24	1.25
9	Maine	3.17	1.22
10	Colorado	3.13	1.20
11	Arizona	3.12	1.20
12	Alabama	3.08	1.18
13	Florida	3.08	1.18
14	Louisiana	3.07	1.18
15	Georgia	3.00	1.15
16	California	2.77	1.07
17	South Dakota	2.71	1.04
18	Wisconsin	2.71	1.04
19	Texas	2.66	1.02
20	Minnesota	2.60	1.00
21	Nebraska	2.60	1.00
22	Iowa	2.39	.91
23	Arkansas	2.19	.84
24	Oklahoma	2.07	.80
25	Kansas	2.06	.79
26	Missouri	2.06	.79

Total Energy Costs

Comparative Analysis Total Annual Operating Cost
of a "Typical" Plant -
October 1979

Rank	State	Cost	Ratio
1	Arizona	597,597	2.37
2	New York	520,752	2.13
3	Massachusetts	381.534	1.55
4	Illinois	309,868	1.26
5	Florida	307,430	1.25
6	New Hampshire	298,915	1.22
7	Pennsylvania	295,162	1.20
8	California	291,373	1.19
9	Alabama	289,237	1.18
10	Arkansas	285,187	1.16
11	North Dakota	279,007	1.14
12	South Dakota	272,325	1.11
13	Georgia	271,175	1.11
14	Wisconsin	269,777	1.10
15	Missouri	268,215	1.09
16	Iowa	260,521	1.06
17	Kansas	256,979	1.05
18	Minnesota	245,051	1.00
19	Maine	239,498	.98
20	Colorado	234,177	.96
21	Nebraska	233,301	.93
22	Oklahoma	222,618	.91
23	Louisiana	181,523	
24	South Carolina	181,269	
25	Texas	171,580	

Electric Power

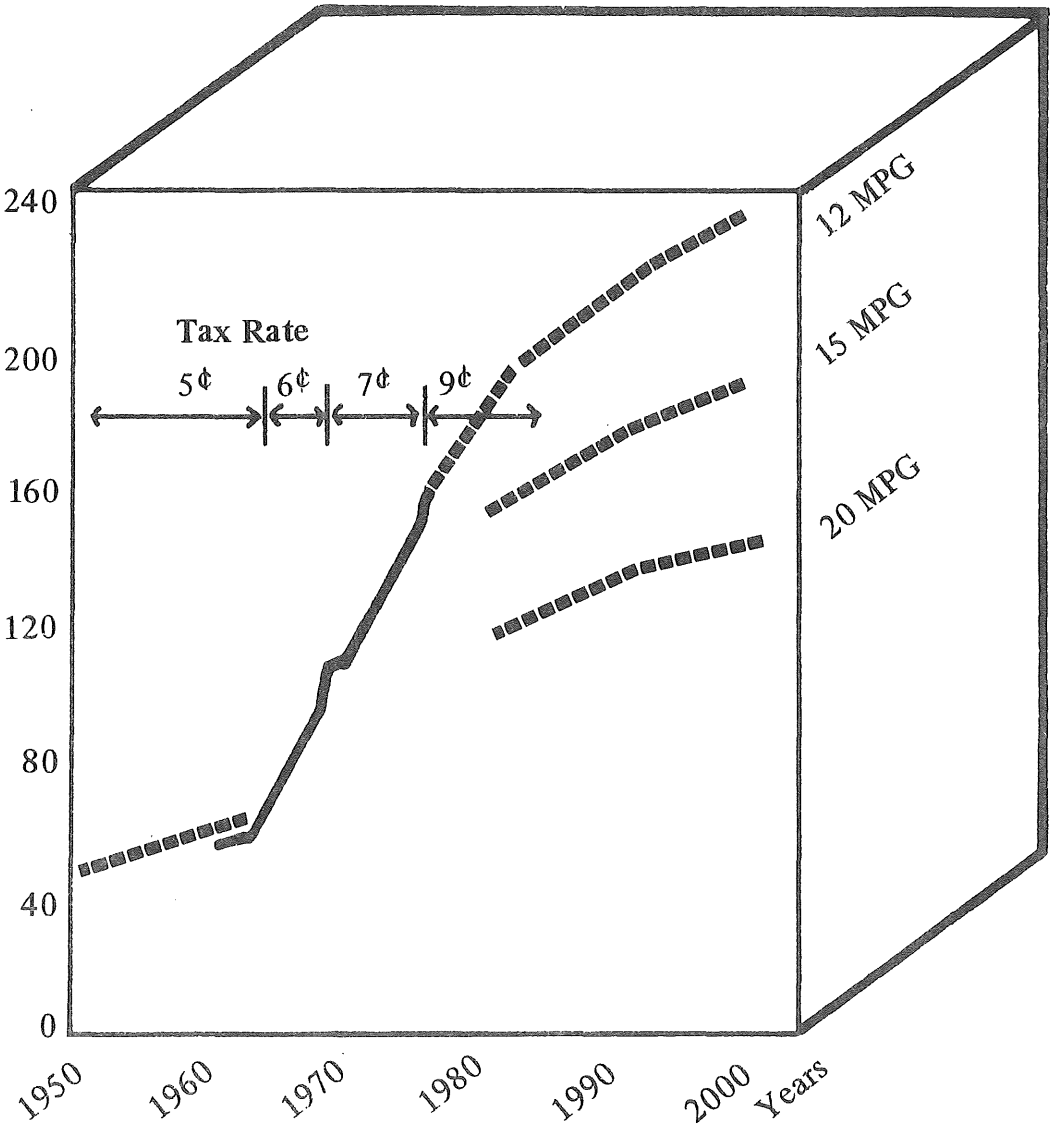
Comparative Analysis: Cost of Electric Power
October 1979

Rank	State	$1 per BTU	Ratio
1	Arizona	27.77	3.27
2	New York	25.31	2.98
3	California	16.38	1.99
4	Massachusetts	16.01	1.88
5	Florida	14.43	1.70
6	Georgia	13.42	1.53
7	Alabama	12.13	1.43
8	Illinois	11.95	1.41
9	Pennsylvania	11.69	1.38
10	New Hampshire	11.57	1.36
11	Arkansas	11.25	1.32
12	Kansas	10.52	1.24
13	Missouri	10.52	1.24
14	Wisconsin	10.30	1.21
15	South Dakota	9.87	1.16
16	Iowa	9.64	1.13
17	North Dakota	8.57	1.01
18	Minnesota	8.50	1.00
19	Colorado	8.43	.99
20	North Carolina	8.26	.97
21	Maine	8.12	.95
22	Oklahoma	8.06	.95
23	Nebraska	7.76	.91
24	Louisiana	7.41	.87
25	South Carolina	6.70	.79
26	Texas	6.59	.78

Exhibit 20

AUTOMOBILE FUEL ECONOMY AND ITS EFFECTS ON STATE TAX REVENUE

Gas tax revenues in millions of dollars



MPG=miles per gallon
Tax rate=cents per gallon

Gax tax revenues based on projected number of autos driven an average of 12,000 miles per auto each year.

Source: Minnesota State Planning Agency
Planning for the Future 1979

Transportation

TRANSPORTATION

Minnesota businesses have access to national and international markets through diversified and abundant transportation facilities. Minnesota, which ranks 19th in United States population[1], ranks 4th in the number of publicly owned airports[2], 4th in miles of highway[3], and 5th in miles of railroad track[4]. The transportation network is further enhanced by the deep water ports of Duluth and Two Harbors on Lake Superior and barge facilities on the Mississippi River. The port of Duluth is the closest world port for importers and exporters in the upper Midwest region. Minnesota is also fortunate in its location on national and international great circle airline routes, putting most world markets within a few hours' reach[5]. This is a definite asset to business development in all regions of the state. Past claims of excessive market distances from Minnesota obviously no longer hold true.

Minnesota Highways

There are over 129,000 miles of highway in the Minnesota Highway System[6].

Mileage of Minnesota's Highway System

Federal Interstate	833
State trunk highways	12,191
County state aid highways	29,749
County roads	15,172
Township roads	56,299
Municipal state aid highways	1,444
Municipal streets	13,381
State Total	129,069

Source: Minnesota Department of Highways, Office of Program Planning.

Much of the movement of industrial products between sources of supply, manufacture, and markets depends primarily on the state's roadway system. While all communities benefit from a high quality highway system, these highways also provide an absolutely vital link to an estimated 37.5% of all Minnesota communities that are without rail service and depend entirely on trucks to meet their freight and transportation needs[7]. With over 100 common carriers serving Minneapolis and over 14,000 commercial trucks for hire statewide, truck transportation is readily available and accessible to all parts of the state.

The future quality of roadways, however, now faces a major problem. Currently the state trunk highway system and the county and municipal state aid road system are financed by

an 11¢ per gallon motor fuel tax and motor vehicle registration fee. As fuel conservation increases, this tax base decreases. In addition, the number of autos per household and the number of miles driven per auto is also decreasing. As a result, the current tax base is barely sufficient to cover maintenance and most "in progress" projects. New highway projects have come to a halt. As more fuel efficient autos develop, this base will be further eroded (Exhibit 20). With over 100,000 miles of highway, it is clear that each region is well served now. However, the question to be answered is: What is the future of the state's highway system?

In summary, the state's highway systems now are in excellent condition. However, with continually decreasing tax bases even routine maintenance may soon face monetary constraints. New highway projects are untenable until an increased source of funding occurs, whether through increases in current taxes or shifting of funds from other areas.

Railways

The railway system of Minnesota includes 6,893 miles of track. This is the 5th largest system in the United States[10]. (The state's rail system is shown in Exhibit 21.) As previously mentioned, about 37.5% of Minnesota's communities are without rail service, and as railway abandonment continues, this percentage will increase. Railway abandonment is occurring more frequently in the southern part of the state where markedly fluctuating crop production causes an unstable rail transport climate. As such, steady profits cannot be insured.

The major reason for rail abandonment in the state (from 8,297 miles in 1970 to 6,893 miles in 1980) has been the inability of railroad companies to make a profit on marginal lines. The trend in the state to alleviate this problem is to develop industrial parks which concentrate many common rail users in one location, thereby increasing profitability of rail lines that serve these. Since rail service is approximately twice as efficient and half as expensive as truck transportation, one can conclude rail facilities in Minnesota will receive increased usage and become more profitable as fuel prices increase and industrial parks are developed.

In summary, economic conditions will continue to cause the state's railway system to lose track to abandonment. Past patterns of laying rail facilities to suit the needs of new business will likely shift to business locating in industrial parks or similar areas where rail facilities now exist.

Air Facilities

There are 141 public airports in Minnesota, ranking Minnesota 4th in the nation. As can be seen from Exhibit 22, the 19 certificated and Commuter Air Carrier Service facilities assure that no region in the state is far removed from air carrier service.

Air facilities throughout the state give easy and rapid access to major markets for the light-weight, high-value added air cargo of the state's science and high technology industries. Time to world markets from Minnesota is now measured in hours rather than weeks and days.

The future of Minnesota's commercial air carrier facilities will be determined by the tradeoffs among high transportation costs (relative to truck and rail), increased fuel costs, and rapid delivery. With energy costs likely to continue to rise, it appears the state's air facilities will continue to predominantly serve the light-weight, high-value industries of Minnesota.

In summary, Minnesota has ample air carrier facilities to serve all regions of the state. Therefore, air transport will continue to provide a needed service, particularly where time considerations predominate.

Water Transport Facilities

Water transport facilities in Minnesota are based on two waterways, Lake Superior and the Mississippi River. The port of Duluth at the western tip of Lake Superior is the beginning of the St. Lawrence Seaway. It is the closest world port for importers and exporters throughout the Upper Midwest region. Bulk grain is the principal export commodity--over 3 million tons per year[11]. Total tonnage for all commodities shipped (export/import and interlake) for the port of Duluth exceeded 37 million tons in 1980.

Public and private concerns have committed over 100 million dollars since 1973 to develop handling facilities at the port of Duluth. This support shows the value Minnesotans place on the port and the optimism business feels. It is not merely a speculative investment, however, when it is realized the port is linked with six railroad systems and more than 20 over-the-road common carriers. This creates a trade area extending almost to the Rocky Mountains in the west and to Iowa and Nebraska to the south and southwest.

Port of Minneapolis-St. Paul

The ports of Minneapolis-St. Paul handle about 10 million tons of freight per year. As with the port of Duluth, investment by public and private concerns have improved port

facilities. The most recent improvement was a project which extended the navigable portion of the Mississippi almost nine miles. Areas within the potential reach of Minnesota waterway systems are shown in Exhibit 23.

In summary, the water transport facilities of the state are excellent. Their appeal, however, remains to the large quantity shipper. Future trends show that consolidation might enable many small shippers to benefit from low waterway shipment bulk rates.

Transportation for Business in Minnesota: The Future

Energy costs will dominate most facets of the transportation industry through the '80s. As energy costs rise, transportation costs will rise and producers and manufacturers will tend to cluster in production centers such as industrial parks to create economies of agglomeration which will result in lower transportation costs. As examples, the cities of Alexandria, Marshall, and Detroit Lakes bear watching as they are well situated with many excellent transportation facilities present. (See Exhibit 6 on growth pole cities in the Population section.)

Summary

The highway system will need an increased tax base to remain a dynamic transportation system. This change must occur on the state level. The rail system will continue abandonment of track but the total tonnage of goods moved by rail should increase as producers cluster in industrial parks or similar areas. In addition, efficiency and lower cost of rail transportation will tend to make it more appealing since rising fuel costs will place trucking and air transport at a competitive disadvantage. Increases will be seen in rail/truck piggyback transport. Air facilities will maintain their present role as high value or highly perishable product shippers. Air costs will remain relatively high and although quantity shipped may increase, air's percentage of total goods shipped by all methods will not increase. New water transportation facilities are unlikely, though improvements in current facilities such as handling capabilities will occur. Water transport will remain a good value to the high-bulk shipper.

In summary, all regions are now served by good to excellent transportation facilities. The two major areas of concern for the 1980's are funding sources to maintain and expand facilities and rising energy costs. Problems and strong points particular to each form of transport are summarized in Exhibit 24.

Rising Energy Costs, Some Potential Benefits

Minnesota is the nation's largest producer of iron and one of the leading agricultural states. Surprisingly, there is only one steel mill in Minnesota (North Star Steel in St. Paul) and limited agricultural processing. As transportation costs continue to rise, the economic feasibility of refining iron and agricultural products at their point of origin becomes greater. Systems such as direct reduction of iron ore (see Mining section) and consumer-ready agricultural production are strong possibilities.

It is in areas such as these that Minnesota may still benefit as transportation costs continue to climb. In addition, as demand for the low sulphur coal of Wyoming and Montana increases, the proximity of Minnesota waterways may become a vital transportation link for distributing this coal.

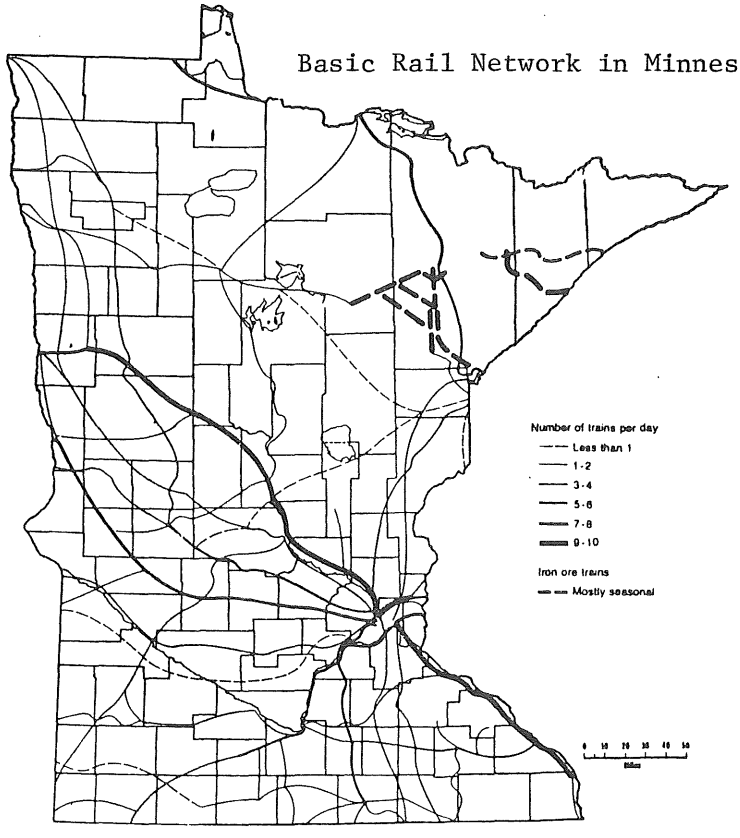
Footnotes

1. Statistical Abstract of the United States, 1971.
2. Minnesota Department of Aeronautics, Five Year Summary Plan.
3. Northern Natural Gas, Economic Data Guide.
4. National Railroad Association, Yearbook of Railroad Facts, 1980.
5. Minnesota Department of Economic Development, Economic Profile, 1980.
6. Minnesota Department of Economic Development, Minnesota Statistical Profile, 1978.
7. Minnesota Department of Economic Development, OP. CIT.
8. Minnesota Department of Economic Development, Minnesota Statistical Profile, 1978.
9. Minnesota State Planning Agency, Planning for the Future, 1979.
10. National Railroad Association, OP. CIT.
11. Minnesota Department of Economic Development, OP. CIT.

Exhibit 21

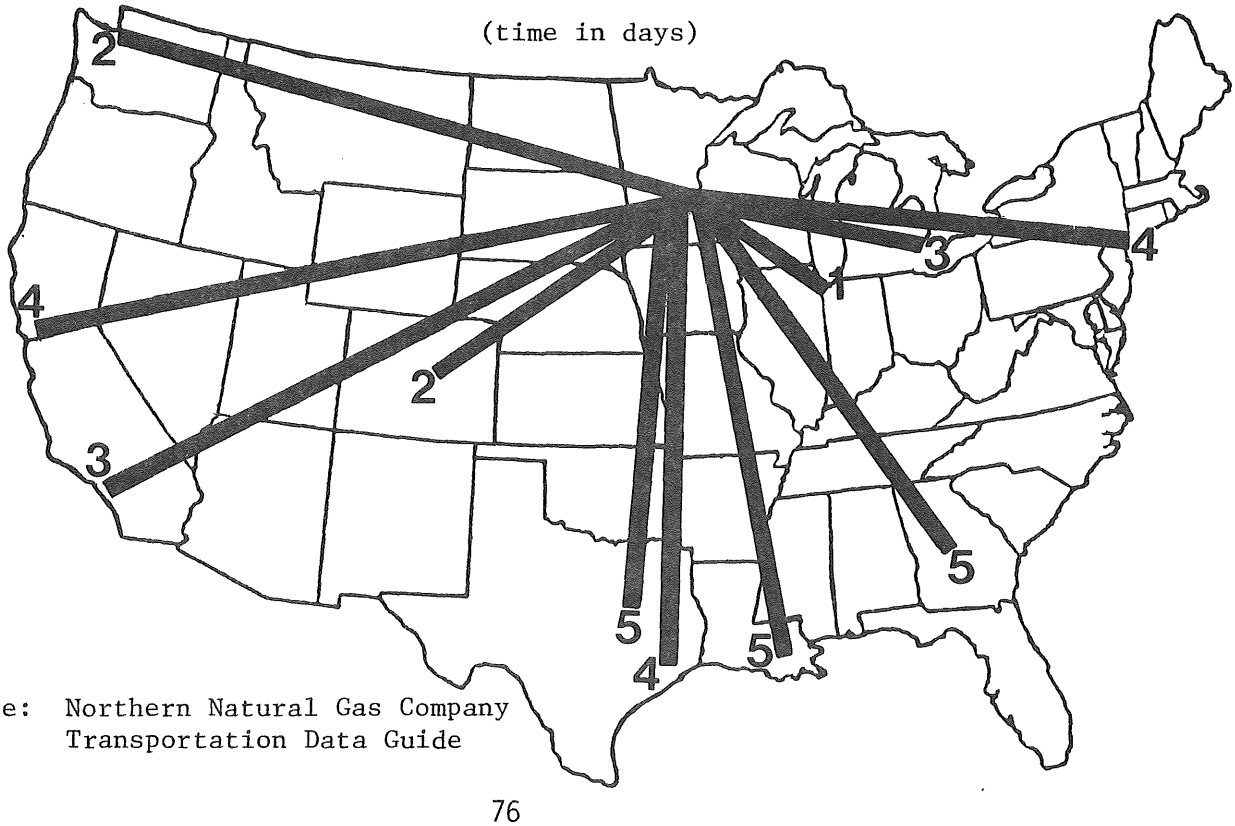
MINNESOTA RAIL SERVICE

Basic Rail Network in Minnesota



Rail Service from Minneapolis - St. Paul

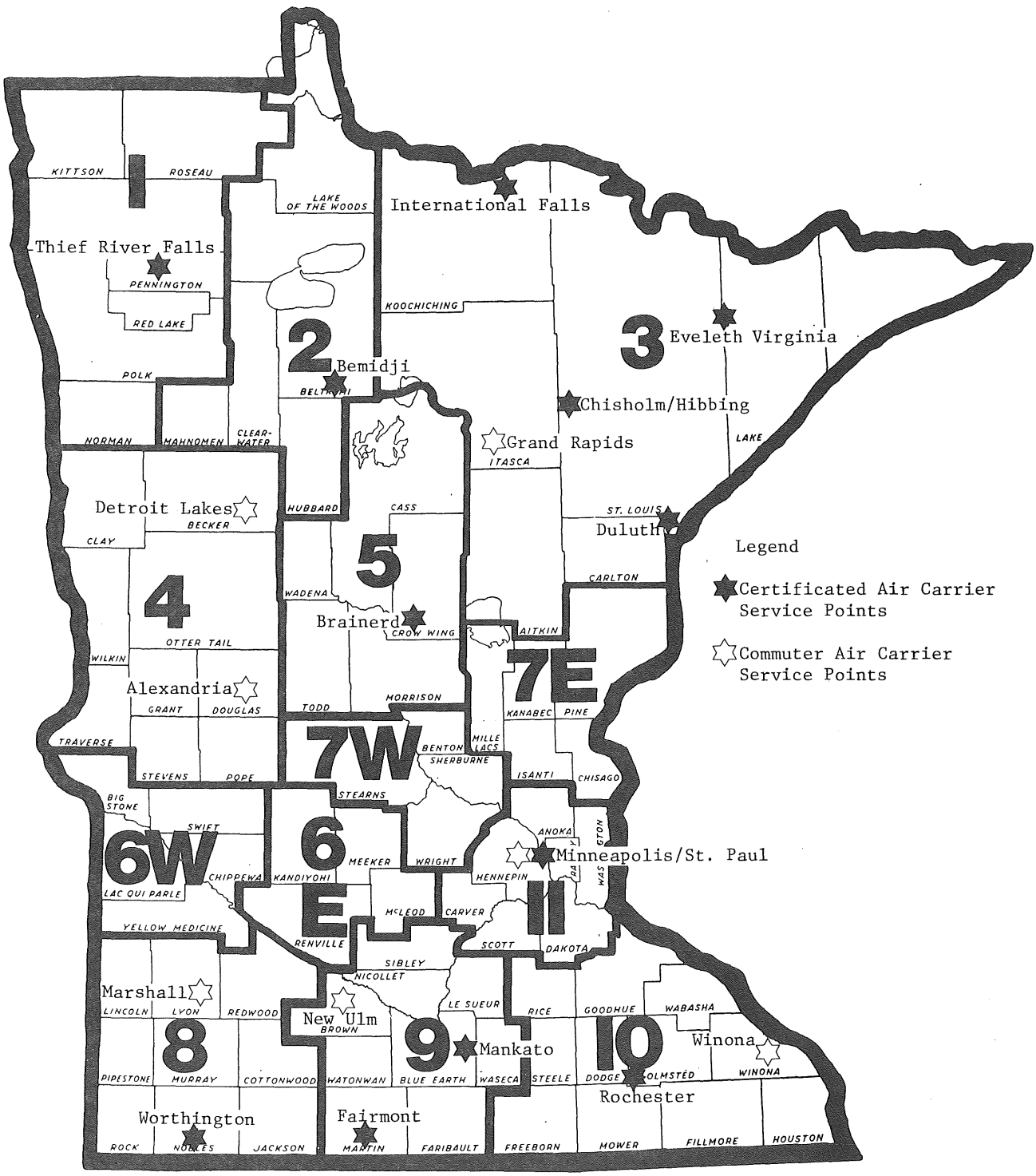
(time in days)



Source: Northern Natural Gas Company
Transportation Data Guide

Exhibit 22

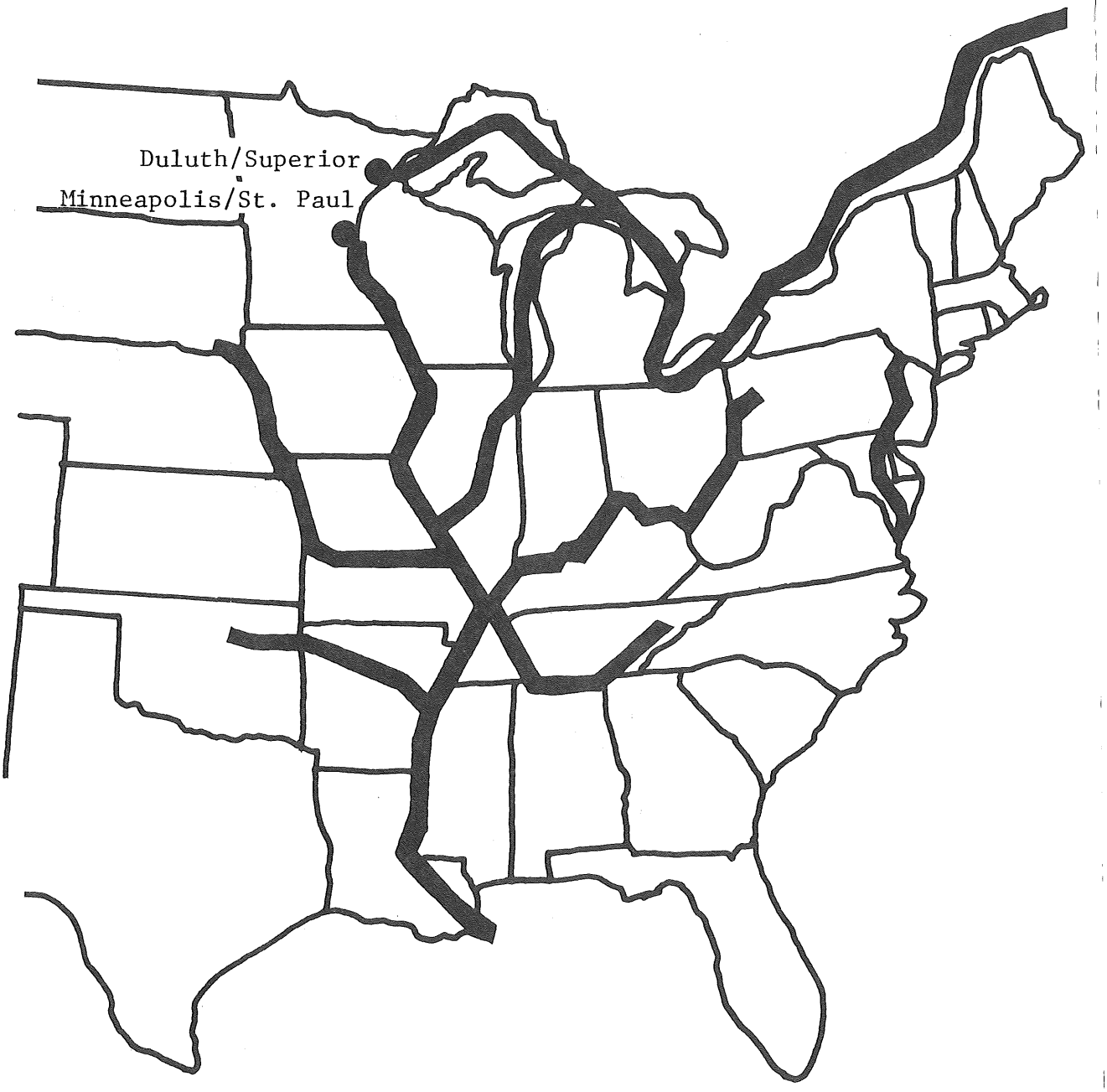
MINNESOTA STUDY AREA AIR CARRIER SERVICE POINTS 1979



Source: Department of Aeronautics
Minnesota Aviation System Plan Summary Report

Exhibit 23

WATERWAY SERVICE FROM MINNESOTA



Source: Northern Natural Gas Company Transportation Data Guide

Exhibit 24

COMPARISON OF ALTERNATE TRANSPORTATION METHODS

SYSTEM	SYSTEM STRENGTHS	SYSTEM WEAKNESSES	PROPOSED SOLUTION
Highways	Virtually 100% of Minnesota communities are in the system. Well maintained. Most flexible system.	Rapidly decreasing funding base. Even more rapidly increasing construction and maintenance costs.	Increased tax on motor fuels.
Railways	Most efficient land-based system both in terms of cost and fuel.	Portions of present system are marginally productive and will eventually be abandoned. Service lacks reliability.	Consolidation of producers/ shippers in central areas. Continued and planned abandonment of marginally productive lines to allow increased service and reliability of present productive lines.
Airways	Most rapid form of transport available. Reliable service.	Most expensive.	Technological developments to greatly increase fuel efficiency would be needed to make air transport competitive to all shippers.
Waterways	Well adapted to bulk shipment. Well financed and supported by public and private groups. Lowest costs of all shipping methods.	Expansion of system or service area is dependent on other forms of transport. Limited appeal to small shipper. Cumbersome.	Possibly greater interface and coordination such as a transportation commission to study present network and methods of improvement.

Taxes

TAXES

"Corporate taxes in Minnesota are too high." This is probably the most common complaint of business in the state. It is most often directed to the 12% corporate income tax or higher than average workers' compensation premiums. The 12% corporate income tax rate unquestionably is a burden to small business in the state and should be immediately corrected by graduating the corporate income tax. However, as a result of a special apportionment method of tax calculation, the actual rate of 12% is seldom paid by large multi-state corporations in Minnesota. (See Footnote 1.) This method of taxation makes it advantageous for a corporation to locate its headquarters in Minnesota. Other tax benefits such as tax exempt revenue bond financing also are available to Minnesota corporations.

The entire question of the role of state and local taxes in corporate location or expansion decisions must be viewed with scrutiny for three major reasons: (1) there are few footloose firms in the United States; (2) state and local taxes are not major business costs; and (3) tax incentives that reduce local business property taxes will tend to be capitalized in higher property values. With these points in mind, a comparison of the Minnesota corporate tax structure was undertaken by the Minnesota Business Partnership, Inc.[2] Five areas were tested in 26 states and the following results were reported:

Study One--Objective: To identify the tax expenses of Minnesota manufacturing plants if they were to be relocated in the other states. A Minnesota plant for each of 14 companies from diverse industries was relocated in 25 other states and corporate income and property tax expenses were compared. It was found that Minnesota's tax burden for such plants was seventh highest in the sample of 26 states[3].

Study Two--Objective: To determine the corporate income and property taxes if a large, new plant were to be located in any one of the 26 states. Five companies with large plants participated in the study which showed that Minnesota ranked eighth in terms of annual income and property tax per $100 of investment.

Study Three--Objective: To calculate and compare the tax burden of small businesses in the 26 states, assuming that each firm conducted most of its business within its home state's borders. Generally it was found that small businesses in Minnesota are at a competitive disadvantage in terms of the corporate income and property taxes they must pay. For example, Minnesota ranks highest in terms of annual income and property taxes per $100 of investment in this study of six small Minnesota businesses.

Study Four--Objective: To determine the comparative tax load on property intensive businesses. The comparison was made on leased office buildings. Hotels and corporate home offices and other similar businesses with heavy

investment in real property would have a similar tax experience. In this study, cities were selected on the basis of ability to gather reliable data on comparable facilities. It is not an exhaustive study, but the cities compared represent major home office centers and the comparisons are significant. Minnesota ranks at the top in this comparison, reflecting a relatively high property tax levy on industrial and commercial real estate.

Study Five--Objective: To show comparative impact in the 26 states of sales tax on machinery and equipment. One of the initial tax items to be considered by a company investigating locating in Minnesota is the sales tax on machinery and equipment to be installed in the new plant. This is a one-time tax. However, it does require additional financing prior to the time an installation begins producing income. Minnesota with a 4% sales tax tied with South Dakota and Texas for second place.

These results indicate the general corporate tax climate in Minnesota. They do not, however, mention many of the direct tax benefits which the state provides to its businesses. Among them are: tax exempt revenue bond financing, tax exemption (freeport) on finished inventories in interstate commerce, governmentally owned industrial sites, exemption of taxes on raw materials used in manufacturing, fair employment practice codes and free export aid programs[4].

The conclusion is that the Minnesota tax structure is very advantageous for interstate businesses which locate their headquarters in Minnesota. In fact, if the 550 billion dollar net worth U.S. corporations were distributed among the states on the basis of population, only 11 would be located in Minnesota. Instead there are 24 located here, and at least 5 others have been spawned from them. This characteristic is well expressed by G. Donald Love, founder and chairman of Oxford Development Corporation of Canada, currently building the 50 million dollar Town Square complex in St. Paul and the 100 million dollar City Center in Minneapolis. Mr. Love's remarks about Minnesota and particularly the Twin Cities, follow. "I think the greatest benefactor of the Twin Cities is the great number of corporations, major corporations in the United States, that have their headquarters in Minneapolis and St. Paul. I think that is unparalleled in the United States, unparalleled in North America. It's unbelievable, the presence of these major corporations with their headquarters there and what they do for that community. It's just really outstanding. And the leadership given to the community by the businesses is outstanding[5]".

Tax Incentives

As was mentioned, tax incentives to attract business are a relatively ineffective tool. Roger Vaughn, assistant vice president of Citibank of New York, in his article "State Tax

Incentives, How Effective Are They?"[6] says,

> There is no evidence that tax concessions have had any significant effect on local growth. Tax incentives are ineffective precisely because state and local taxes are, themselves, relatively unimportant as location determinants. Their effectiveness is doomed for several reasons.
>
> First, the adoption of tax incentives tailored to the wishes of Fortune 500 companies is based on the mistaken belief that there is a fixed stock of manufacturing jobs in the nation and that the only way a state can improve its relative position is to steal from other states. This behavior is analagous to that of a home owner who tries to maintain a green lawn by stealing his neighbor's turf, at great effort, every time his own lawn turns brown. It is much easier and more productive to water regularly and apply fertilizer.
>
> There are very few footloose firms. Even in the most rapidly declining areas, out-migration of firms accounts for less than 5% of the job loss. And in growth areas, in-migration accounts for less than 2% of the job gain. In any case, many of the footloose firms spread their taxable income across so many states that taxes in any one location are of trivial importance. If local growth is to be accelerated, then it must come from increasing the local company birth rate or from expansion of existing local companies, especially small firms.
>
> Second, state and local taxes are not a major business cost. A recent study by the Federal Reserve Bank of Boston found that the average U.S. business paid 4.4% of its income to state and local governments. In 1973, this broke down to 0.9% in corporate income taxes; 1.9% in property taxes; 0.8% in unemployment compensation contributions; and 0.8% in "other business taxes." Thus, special abatements or exemptions do not affect costs very much.
>
> Compounding this lack of importance is the fact that state and local corporate income taxes are deductible from federal taxable income. A dollar reduction in state taxes raises federal corporate income by 48 cents.[7] The incentive is worth less to the company than it would have been to low-income households in the form of a tax cut.
>
> Third, tax incentives that operate on local business property taxes will tend to be capitalized, at least in part, in changes in property values. The lower taxes will lead to higher property prices so that overall

business costs are reduced by much less than the amount of the incentive.[5]

As can be seen, the State of Minnesota is using intelligent long-range planning in not offering individual tax incentives. The type of corporations that locate or expand in Minnesota are the type that will be here to stay.

Tax Differences Within the State

The major tax differential within the state is the property tax. With over 5,000 different municipalities levying taxes, it is impossible to present an accurate picture here. The Tax Study Commission, State of Minnesota, is in the process of doing an extensive study comparing each of the municipalities and their assessment practices and mill rates. The study should be completed by 1981. For present property tax information on any municipality in Minnesota, contact Mr. Patrick Meagher, Tax Study Commission, B46 Capitol Building, St. Paul, Minnesota 55155; phone (612) 296-6717.

Workers' Compensation

Workers' compensation rates in Minnesota are among the highest in the nation. Just mention workers' compensation to most employers and a spirited conversation is sure to ensue. Although not actually a tax, workers' compensation insurance is required by law, and the premiums ("tax") Minnesota employers pay is higher than any other north central state. The Minnesota Business Partnership, Inc., recently completed a study comparing Minnesota workers' compensation rates to 25 other states. The results show Minnesota to rank 5th among the states. On the positive side, the liberal eligibility qualification criteria give a strong sense of security to Minnesota workers.

The major reason for the higher premium rates for workers' compensation insurance in Minnesota is the liberal definition of work-related injuries. In most states, workers are covered by workers' compensation for accidents that occur directly on the job. In Minnesota, workers are covered for injuries on or directly cause-related to the job. As an example, in Minnesota a worker would most likely be covered by workers' compensation for severe headaches incurred as a result of noise conditions at the work place, even though a direct relation may only be assumed. The nature (amount) of benefits paid workers' compensation recipients in Minnesota is similar to most of the United States. In effect, it is the relative ease (compared to much of the United States) of qualification for benefits which results in the high premium rate for workers' compensation insurance in Minnesota.

In 1979 the legislature enacted the following changes in workers' compensation laws.

Workers' Compensation
Minnesota 1979 Legislative Changes[9]

Benefits

* 1. No double benefits during retraining - 25% incentive.
2. Death benefit - widows and widowers presumed dependent.
3. Vesting of accrued temporary total and temporary partial.
* 4. Permanent partial paid at rate of 25% per month.
5. Supplemental benefits increased from 60% to 65%.

Medical

* 1. Court of Appeals increased from 3 to 5 judgeships.
* 2. Neutral physician in contested cases/request made 30 days prior to pre-trial hearing.
3. Rehabilitation under Department of Labor and Industry/emphasis on return to work.
4. Commissioner of Labor or Industry to conduct medical fee review and establish disability payment schedules.

Administration

* 1. Re-opened case fund to assume liability for claims re-opened after 7 years or where compensation has not been paid for at least 3 years/participation mandatory.
2. Reinstatement Association to assume liability for any single claim reaching threshold of $100,000 or $300,000 (mandatory membership by carriers and self-insurors).
3. Local government self-insurance funds/ indemnification provision.

Communication of Rights

1. Commissioner of Labor to prepare brochure for employees and employers.
2. Employers must post notice of employee rights.

Study Commission

1. Joint Legislation Commission created to study feasibility of establishing Competitive State-Operated WC Insurance Fund - Due 1-81.

*Directly or indirectly related to Minnesota Business Partnership recommendation.

The Minnesota Business Partnership has proposed the following as still needed changes in the compensation laws.

Recommendations[10]

Workers' Compensation

- Eliminate the cost of living escalator from the current law, thus requiring specific legislative action in order to increase the Workers' Compensation benefit level.

- Greater administrative control over the awarding of benefits is necessary to ensure that benefits are not misapplied.

- Independent medical experts should be used in adjudicating disputed cases.

- Retain the private insurance system as opposed to creation of state fund.

Conclusion

In summary, it is undeniable that Minnesota Workers' Compensation rates are high. However, they are representative of the commitment by the State of Minnesota to be a progressive state in social concerns. Also, although unquantifiable, there is a strong sense of security in Minnesota workers that severe economic hardships will not be incurred should they be injured on the job. There is a bright spot in this section of workers' compensation: in 1978 Minnesota ranked fourth of the 26 states surveyed; in 1979 it ranked fifth.

Footnotes

1. Perhaps the most advantageous tax benefit available to Minnesota corporations is the option of using a special apportionment method of tax calculation. Most state tax laws are based on a simple arithmetic average of percent of sales, property, and payroll within the state multiplied by the tax rate. Under Minnesota law, the company has the option of paying .15 times the property and payroll ratios and .70 times the sales ratio. The results are then added.

   Example

   A corporation has the following:
   90% of property in Minnesota
   90% of payroll in Minnesota
   10% of sales

   Simple arithmetic average - $\frac{190}{3} = 63.33$

   Therefore taxes would be paid at the corporate income tax rate (12%) x 63.33% of taxable income. However, using the weighted formula the corporation has the option to pay the following tax:
   90% property x .15 = 13.5%
   90% payroll x .15 = 13.5%
   10% sales x .70 = 7%
   Total 34%
   Therefore the corporation would pay tax on 12% x 34% of taxable corporate income.

This is a nearly 50% reduction in taxes, 63.3% vs. 34% of taxable income. This rate is equivalent or well below the rates of many states that allow use of the simple arithmetic average only. It has been determined through computer simulation that on a whole, those corporations that operate in at least one other state besides Minnesota would together pay approximately 25% more income tax if they had to use the simple arithmetic average instead of the more advantageous weighted formula. The total tax paid in Minnesota was about 34 million dollars in fiscal 1977. These dollars are then free to encourage business expansion in Minnesota.

2. Minnesota Business Partnership, The Minnesota Economy; How Does It Compare? December 1979.
3. IBID.
4. Northern Natural Gas, Economic Data Guide.
5. Corporate Report, July 1980.
6. "State Tax Incentives, How Effective are They?" National Council for Urban Economic Development.
7. Mr. Vaughn's .48% figure was accurate at the time of its publication. The current (December 1980) maximum is 46%.
8. Minnesota Business Partnership Inc., The Minnesota Economy: How does it Compare? 1979.
9. IBID.
10. IBID.

Exhibit 25

1978/79 WORKERS' COMPENSATION RATE ANALYSIS[8]

Rank	State	1978 Avg. Hrly. Earnings	Avg. W.C. Rate Per $100 Payroll	Annual Cost Per Employee	Ratio
1	Arizona	$6.03	$6.06	$760	148.7
2	California	6.43	4.83	645	126.2
3	New York	6.08	4.62	584	114.3
4	Pennsylvania	6.37	4.19	555	108.6
5	Minnesota	6.43	3.82	511	100.0
6	Florida	5.01	4.73	493	96.5
7	Texas	5.90	3.99	490	95.9
8	Illinois	6.76	3.45	485	94.9
9	Louisiana	6.40	3.38	450	88.1
10	Oklahoma	5.81	3.34	404	79.1
11	Massachusetts	5.54	3.51	404	79.1
12	Maine	4.90	3.71	378	74.0
13	Iowa	6.99	2.49	362	70.8
14	New Hampshire	4.93	3.39	348	68.1
15	Colorado	6.21	2.63	340	66.5
16	Arkansas	4.72	3.23	317	62.0
17	Wisconsin	6.69	2.07	288	56.4
18	Georgia	4.91	2.51	256	50.1
19	Kansas	5.93	2.03	250	48.9
20	Alabama	5.40	2.12	238	46.6
21	North Dakota	5.54	1.94	224	43.8
22	Missouri	6.21	1.65	213	41.7
23	Nebraska	5.84	1.70	207	40.5
24	South Carolina	4.66	2.09	203	39.7
25	South Dakota	5.18	1.70	183	35.8
26	North Carolina	4.47	1.56	145	28.4

Basis: 1) 1978 average hourly earnings from Bureau of Labor Statistics.

2) Workers' Compensation rates are based on the average manual rates for the 25 highest dollar volume payroll classifications in Minnesota. Comparable third quarter 1979 manual rates were determined for each of the other 25 states.

Income

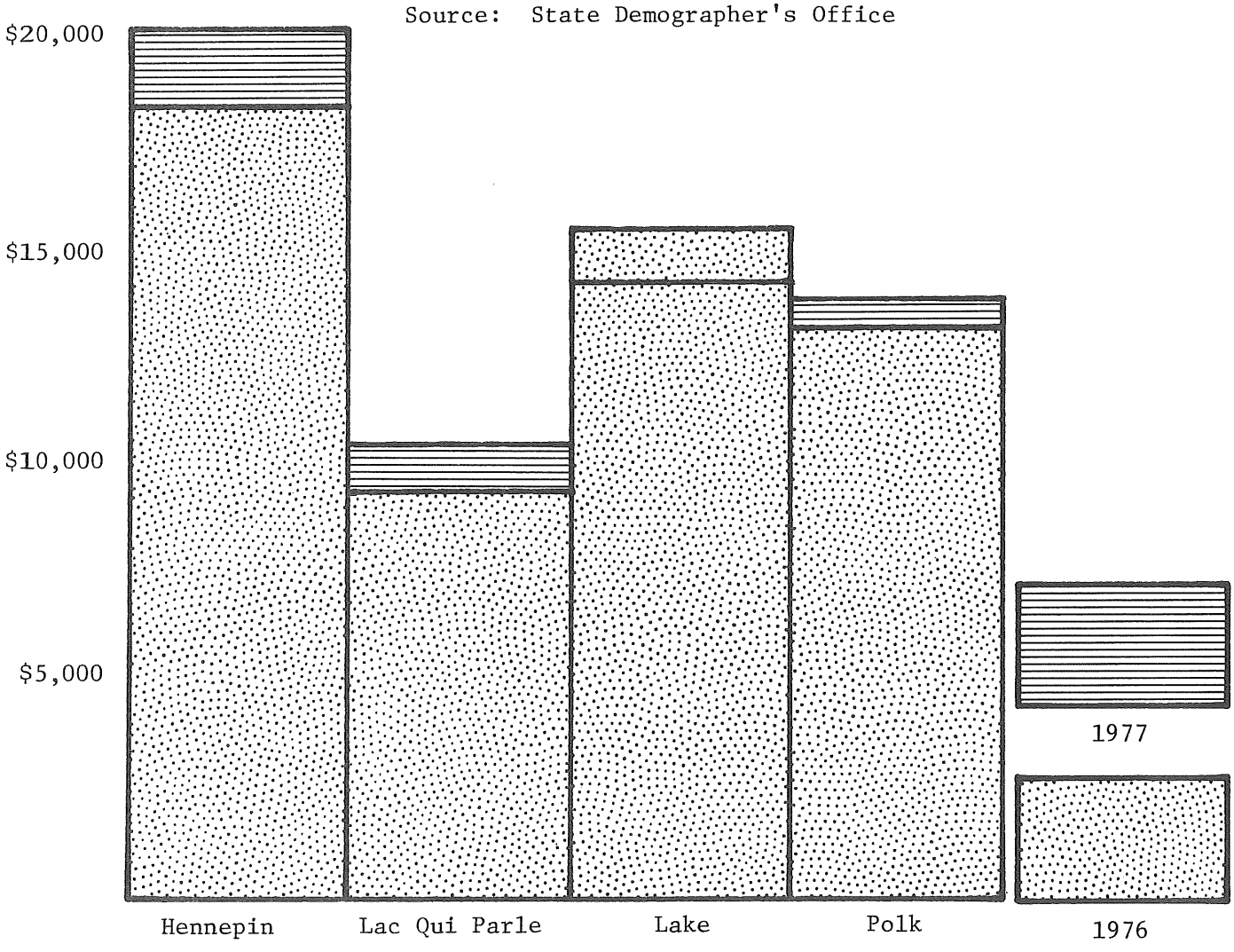
INCOME

Income to most Minnesotans is derived form wages paid by Minnesota business. Therefore, income levels are an important concern to Minnesota employers and employees. Income to Minnesotans expressed as per capita income is approximately equal with the national average and is expected to remain at the same relative level in the future (Exhibit 26).

There are, however, regional disparities which are determined primarily by the nature of the economic base. The following graph clearly addresses these disparities. Shown are median incomes of husband-wife families in four counties representing different economic bases. Hennepin (Region 11) represents a widely diversified base; Lac Qui Parle (Region 6W) has an agricultural base strongly affected by the 1976 drought; Lake County (Region 3) was strongly affected by the taconite industry and the 1977 strike; and Polk County (Region 1) has an agricultural base not affected by drought.

MEDIAN INCOME OF HUSBAND - WIFE FAMILIES

Source: State Demographer's Office



As can be seen from this graph, weather conditions strongly influence income in the agricultural communities. Minnesota has about 2.5 times the national average percentage of farm population, therefore per capita income in many regions of the state is strongly influenced by agricultural conditions. Exhibit 27 shows median income of husband-wife families filing tax returns in 1977. Regional income disparities are clearly shown in this exhibit.

Basically, only those counties in Region 11 which includes the Twin Cities metro area, Olmsted County in Region 10 including Rochester, and Sherburne County in Region 7W including St. Cloud, had higher husband-wife family median incomes than the state median. Furtunately, these counties represented 51.5% of the state's population.

Conclusion

Income in Minnesota approximates the national average with the Twin Cities' Metropolitan Region 11 residents remaining above state and national averages. The average income level of a region is closely tied to the strength of its industrial base with the more diversified regions having higher relative wages. Future income levels in Minnesota will continue to approximate the national average, though farm regions will remain highly dependent on the fortunes of the harvests.

Exhibit 26

MINNESOTA PERSONAL INCOME
(in thousands of 1967 dollars)

Industry Segment	1969	1975	1980	1990
Total personal income	12,477,823	14,731,906	19,731,000	28,279,000
Total earnings	10,084,003	12,809,546	15,672,500	22,214,800
Agriculture, forestry and fisheries	657,262	740,431	750,800	826,000
Mining	130,187	140,563	148,200	161,000
Metal	118,195	126,284	132,300	142,700
Crude petroleum and natural gas	615	552	NA	NA
Nonmetallic, except fuels	11,376	13,694	15,300	17,600
Contract construction	709,599	903,816	1,082,000	1,484,100
Manufacturing	2,656,541	3,189,000	3,840,900	5,270,700
Food and kindred products	437,520	482,122	531,800	597,600
Textile mill products	16,186	16,217	20,700	26,000
Apparel and other fabric products	33,792	41,699	46,700	53,600
Lumber products and furniture	75,971	92,672	108,400	143,300
Paper and allied products	279,945	354,402	426,300	584,500
Printing and publishing	180,247	226,102	272,100	381,800
Chemicals and allied products	51,323	68,525	66,000	118,900
Petroleum refining	23,684	30,113	35,600	47,600
Primary metals	62,696	65,253	59,800	80,200
Fabricated metals and ordnance	271,095	289,401	339,500	451,900
Machinery, excluding electrical	577,718	708,253	881,900	1,234,500
Electrical machinery and supplies	248,918	290,546	378,300	526,000
Motor vehicles and equipment	50,034	65,773	78,700	107,600
Trans, equip., excl. mtr. vehs.	36,820	58,820	77,600	109,600
Other manufacturing	310,590	397,002	486,800	696,900
Trans., comm. and public utilities	735,950	908,871	1,092,400	1,501,800
Wholesale and retail trade	1,844,757	2,293,432	2,735,800	3,737,500
Finance, insurance and real estate	501,255	673,305	854,600	1,285,500
Services	1,443,446	2,036,670	2,743,500	4,313,900
Government	1,405,016	1,923,453	2,423,800	3,633,900
Federal civilian government	244,995	322,838	393,400	578,500
State and local government	1,088,635	1,528,151	1,957,400	2,364,300
Federal military	71,388	72,469	72,900	91,000
Per Capita Personal Income:				
Minnesota	3,320	3,752	4,790	6,211
United States	3,435	4,075	4,780	6,166

Source: Bureau of Economic Analysis, U.S. Department of Commerce.

Exhibit 27

MEDIAN HUSBAND-WIFE INCOMES FOR MINNESOTA COUNTIES 1977

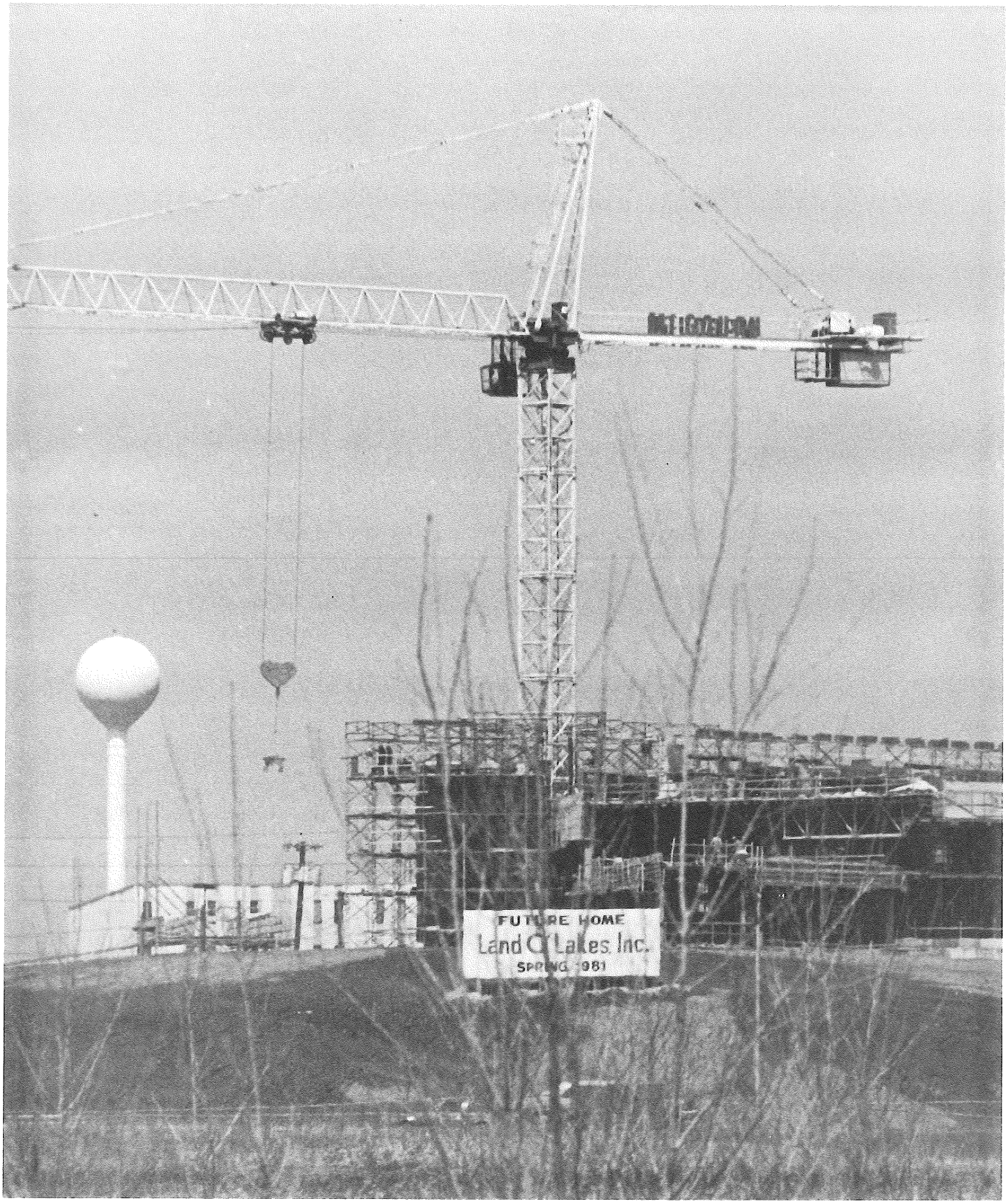
State Average--$16,864

Region 1		Region 6E		Region 9	
Kittson	12,260	Kandiyohi	13,597	Blue Earth	15,392
Marshall	11,384	McLeod	15,195	Brown	14,623
Norman	11,416	Meeker	11,900	Faribault	13,830
Pennington	14,288	Renville	12,538	Le Sueur	14,182
Polk	13,872			Martin	14,021
Red Lake	10,129	Region 6W		Nicollet	15,859
Roseau	11,190			Sibley	12,283
		Big Stone	10,581	Waseca	14,903
Region 2		Chippewa	12,132	Watonway	12,888
		Lac Qui Parle	10,478		
Beltrami	12,040	Swift	10,847	Region 10	
Clearwater	8,324	Yellow Medicine	11,412		
Hubbard	9,905			Dodge	14,117
Lake of the		Region 7E		Fillmore	10,450
Woods	10,353			Freeborn	15,266
Mahnomen	8,259	Chisago	15,897	Goodhue	15,558
		Isanti	15,612	Houston	12,971
Region 3		Kanabec	11,164	Mower	16,502
		Mille Lacs	12,511	Olmsted	19,165
Aitkin	9,047	Pine	11,098	Rice	15,662
Carlton	15,373			Steele	15,535
Cook	12,525	Region 7W		Wabasha	13,567
Itasca	14,263			Winona	14,456
Koochiching	15,651	Benton	13,522		
Lake	14,594	Sherburne	17,044	Region 11	
St. Louis	15,709	Stearns	14,158		
		Wright	15,580	Anoka	19,994
Region 4				Carver	17,347
		Region 8		Dakota	21,108
Becker	11,468			Hennepin	20,346
Clay	16,226	Cottonwood	12,834	Ramsey	19,258
Douglas	11,745	Jackson	12,860	Scott	18,933
Grant	10,490	Lincoln	8,340	Washington	20,870
Otter Tail	10,870	Lyon	13,873		
Pope	9,794	Murray	10,942		
Stevens	11,979	Nobles	13,299		
Traverse	11,334	Pipestone	10,599		
Wilkin	13,528	Redwood	12,109		
		Rock	12,732		
Region 5					
Cass	9,522				
Crow Wing	12,810				
Morrison	10,260				
Todd	9,147				
Wadena	10,465				

Source: Minnesota Department of Economic Development, 1977 Median Husband-Wife Incomes for Minnesota Counties.

Section IV
Strategic Industries

New and Expanding Industries



NEW AND EXPANDING INDUSTRY

Growth patterns for businesses in Minnesota have averaged 10% since 1968. Exhibit 28 shows specific industrial group growth.

Mining had the highest growth rate. This was followed closely by transportation, communication, and public utilities (T.C.P.U.). Finance, insurance, and real estate (F.I.R.E.) and services tied for third place. The volatility of the farm sector is very significant. It advanced six times and declined four times during the decade. The sharp increases during 1973 and 1977 (109% and 69% respectively) contributed to the high average rise of the Gross State Product for those years.

A rough estimate of the value of any grouping to a specific region may be derived by using the formula in Footnote 1.

New and Expanding Industry

New and expanding industry is an indication of economic activity in a state. For our purposes new industry constitutes two types of construction, (1) those facilities new to the state or (2) construction by Minnesota firms on new sites removed from any existing facilities. Expanding industry constitutes construction on or adjacent to the site of an existing company[2].

As can be seen from Exhibit 29, most of the investment in new and expanding industry was in manufacturing (56% of new, 76% of expanding). Manufacturing also accounted for 60% of all the jobs in new and expanding industry in 1979 with 7,578 of the 12,558 new jobs created.

Exhibit 30 shows the breakdown by Standard Industrial Codes for 1979 New and Expanding Manufacturing. Paper products dominated with nearly 50% of all new and expanding industry. Food and lumber products were the only other manufacturers to have more than 10% of the total (11.9% and 10.5% respectively).

Conclusion

Minnesota's growth rate is above that of the nation. Much of this is due to the diversity and strength of the manufacturing base. It is this base which will continue to insure the good fortunes of a large portion of Minnesota's economy.

Footnotes

1. The following formula is used to get a "rough" estimate of the dollar value of a major Minnesota industrial grouping to a particular region. Take the percent of regional employment as a percent of total state employment for the industry in question (this number is obtained from Exhibit 7 in the Labor Force section). Multiply this percentage by the total dollar value for that industry in Minnesota from Exhibit 1 in this section. Examples for 1978:

   Dollar Value of the Mining Industry generated in Region 3 =

   87.9 x 1,051,000,000 = 923,829,000

   Therefore, in Region 3 mining roughly generated 923 million dollars towards gross state product. This estimate has several assumptions and generalizations built into it which render it invalid as a statistically accurate measure. It is only to be used to obtain "ballpark" type figures.

2. The Minnesota Department of Economic Development in an effort to be comprehensive and thorough derives their information for these categories from the following: construction starts reported by news clippings, F.W. Dodge Reports, and reports from utilities, chambers of commerce, Minnesota Department of Economic Development field representatives and firms involved with the projects. In addition, a follow-up survey done by the D.E.D.'s research division attempts to verify these figures with chief executives of the new and expanding industries.

Exhibit 28

State of Minnesota

TRENDS IN GROSS PRODUCT OF PRIVATE NONFARM INDUSTRIES, 1968-78
(in millions of current dollars)

Year	Mining	Con-struction	Manu-facturing	Trade	FIRE[1]	TCPU[1]	Services	TPNF[1]	Farm	Government	GSP	% Change in GSP
1968	362	798	3,857	2,905	2,030	1,386	1,674	13,012	995	1,527	15,534	-
1969	368	920	4,198	3,176	2,239	1,517	1,846	14,264	1,057	1,704	17,025	9.6
1970	385	968	4,247	3,470	2,466	1,582	2,027	15,145	1,271	1,951	18,367	7.9
1971	428	1,041	4,262	3,712	2,720	1,732	2,034	15,929	1,242	2,180	19,351	5.4
1972	404	1,034	4,738	3,956	2,860	1,963	2,184	17,139	1,385	2,441	20,965	8.3
1973	491	1,176	5,406	4,475	3,097	2,259	2,473	19,377	2,894	2,607	24,878	18.7
1974	554	1,245	5,681	4,980	3,384	2,411	2,718	20,973	2,420	2,809	26,202	5.3
1975	726	1,303	6,095	5,545	3,811	2,625	3,067	23,172	2,147	3,158	28,477	8.7
1976	788	1,521	6,984	6,161	4,282	2,973	3,497	26,206	1,705	3,459	31,370	10.2
1977	709	1,667	7,930	6,760	5,011	3,289	4,070	29,436	2,884	3,645	35,965	14.6
1978	1,051	1,999	9,121	7,607	5,624	3,752	4,653	33,807	2,951	4,116	40,874	13.6
Minnesota Percent Change[2]	10.9%	8.6%	8.7%	10.0%	10.4%	10.6%	10.4%	9.8%	10.8%	10.1%	9.9%	-
U.S. Percent Change	14.6%	8.4%	7.9%	9.6%	9.3%	10.0%	10.8%	9.7%	9.7%	9.2%	9.3% (GNP)	-

[1]FIRE - Finance, insurance and real estate; TCPU - Transportation, communications and public utilities; TPNF - Total private non farm.
[2]Compound annual rate of growth between average of years 1968-70 and 1976-78.

Source: Minnesota Department of Economic Development.

Exhibit 29

MINNESOTA'S 1979
NEW AND EXPANDING INDUSTRY DATA

NEW INDUSTRY	No.	Investment	Sq. Ft.	New Jobs	% of Total New Industry
Manufacturing	117	$ 282,025,800	4,474,244	3,935	56.0
Warehousing	99	121,635,300	3,163,150	3,745	24.1
Research and Development	3	4,200,000	583,000	90	.9
Headquarters	10	95,950,000	1,444,500	616	19.0
TOTAL	229	$ 503,811,100	9,664,894	8,386	100%

EXPANDING INDUSTRY					% of Total Expanding Industry
Manufacturing	90	$ 486,960,000	2,822,230	3,643	76.2
Warehousing	36	27,897,000	860,400	339	4.4
Research and Development	3	22,998,000	364,000	0	3.6
Power Plants	3	29,150,000	92,000	20	4.6
Pollution Control	4	11,790,000	-	10	1.8
Headquarters	6	60,350,000	1,128,600	160	9.4
TOTAL	142	$ 639,145,000	5,267,230	4,172	100%

TOTAL NEW AND EXPANDING INDUSTRY					% of Total New and Expanding Industry
Manufacturing	207	$ 768,985,800	7,296,474	7,578	67.3
Warehousing	135	149,532,300	4,023,550	4,084	13.1
Research and Development	6	27,198,000	947,000	90	2.4
Power Plants	3	29,150,000	92,000	20	2.5
Pollution Control	4	11,790,000	-	10	1.0
Headquarters	16	156,300,000	2,573,100	776	13.7
TOTAL	371	$1,142,956,100	14,932,124	12,558	100%

Source: Minnesota Statistical Profile, 1979, Minnesota Department of Economic Development.

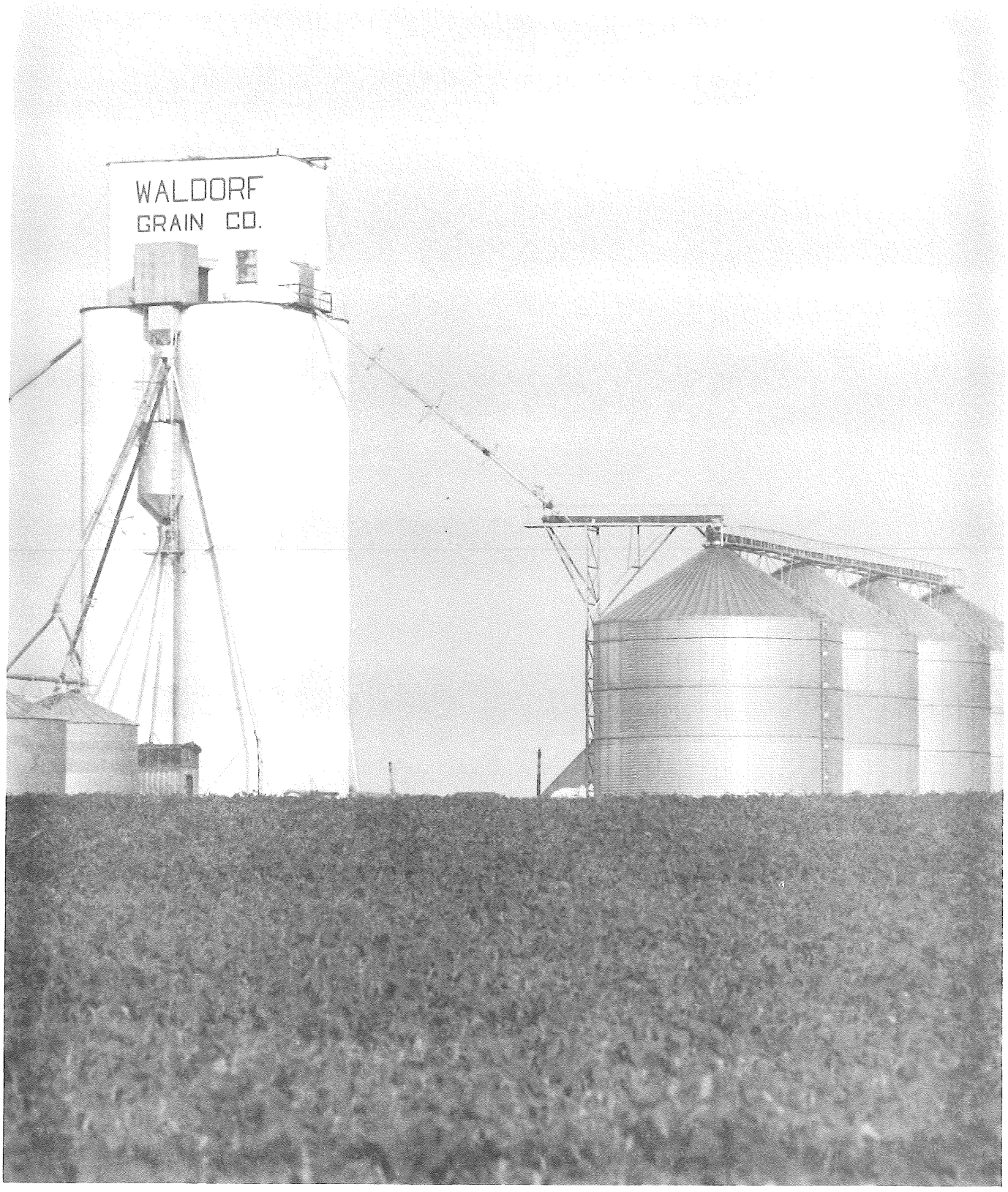
Exhibit 30

MINNESOTA'S 1979 NEW AND EXPANDING INDUSTRY DATA BY STANDARD INDUSTRIAL CLASSIFICATION

SIC	Industry	No.	Investment	Sq. Ft.	New Jobs	Percent of Total Investment
2600	Pulp, Paper and Paperboard	8	$ 365,610,000	302,000	474	47.5
2000	Food and Kindred Products	20	91,955,000	1,502,000	447	11.9
2400	Lumber and Wood Products	13	80,769,000	657,140	487	10.5
3800	Professional, Scientific and Controlling Instruments	15	49,955,000	694,900	770	6.5
3500	Machinery, except Electrical	48	44,667,000	1,645,104	2,097	5.8
2700	Printing and Publishing	24	38,472,000	981,000	384	5.0
3700	Transportation Equipment	8	32,487,000	146,980	1,055	4.2
3600	Electrical Machinery and Supplies	12	20,463,000	388,850	761	2.7
3400	Fabricated Metal Products	22	17,642,000	399,300	379	2.3
3200	Stone, Clay, Glass and Concrete Products	4	5,895,000	57,000	17	.8
3000	Rubber and Plastics Products	7	4,240,000	69,000	113	.6
2300	Apparel and Other Textiles	7	3,678,000	101,100	217	.5
3900	Miscellaneous Manufacturing	5	3,300,000	127,000	123	.4
3300	Primary Metal Industries	4	2,890,000	67,000	58	.4
2900	Petroleum Refining and Related Products	1	2,500,000	NA	NA	.3
2500	Furniture and Fixtures	6	2,312,000	111,700	105	.3
2800	Chemical and Allied Products	2	1,450,000	46,400	83	.2
2200	Textile Mill Products	1	700,000	NA	8	.1
3100	Leather and Leather Products	0	-0-	-0-	-0-	
	TOTAL MANUFACTURING	207	768,985,800	7,296,474	7,578	67.3
	TOTAL WAREHOUSING	135	149,532,300	4,023,500	4,084	13.1
	TOTAL RESEARCH AND DEVELOPMENT	6	27,198,000	947,000	90	2.4
	TOTAL POWER PLANTS	3	29,150,000	92,000	20	2.5
	TOTAL POLLUTION CONTROL	4	11,790,000	NA	10	1.0
	TOTAL HEADQUARTERS	16	156,300,000	2,573,100	776	13.7
GRAND TOTAL		371	$1,142,956,100	14,932,074	12,558	100.0%

Source: Minnesota Department of Economic Development, Minnesota Statistical Profile 1979.

Agribusiness



AGRIBUSINESS

The definition of agribusiness is as nebulous as definitions of high technology or quality of life. Hence it will be defined as farms and other businesses that deal primarily in the food industry, such as processors, grain brokers/distributors, etc. Of the top twenty publicly owned companies that are headquartered in Minnesota, eight meet this definition: General Mills, Super Valu, Pillsbury, Hormel, International Multifoods, Nash Finch, Pacific Gamble Robinson, and Peavey. In addition, Land O'Lakes, a cooperative, and Cargill, one of the world's largest private companies, also meet this definition of agribusiness. Together, according to the Minnesota Department of Agriculture, these private and public companies employ about 12,000 Minnesotans and an additional 190,000 nationally. In total, these companies had about 26 billion dollars in 1979 revenues. These firms and the 50,000 employees in the 800 food processing firms throughout the state, together with the 200,000 farmers and farm workers, and 5.5 billion dollars in 1979 gross farm income indicate the importance of agriculture to the Minnesota economy.

Farms in Minnesota

Shown below are the approximate acreage, value, and primary growth area of the eight major crops which make up most of Minnesota's agricultural base.

1979 Major Minnesota Crops[1]

Crop	Acreage (000)	Value of Production (000,000)	Primary Growth Areas In the State
Corn for Grain	6,060	1,212	South/Central
Soybeans	5,230	970	Southwest/South Central
Hay	3,010	356	Scattered
Wheat	2,578	335	Northwest/Sest
Oats	1,490	106	Scattered
Sunflowers	1,347	165	Northwest/North
Barley	770	87	Northwest/North
Sugar Beets	244	100	West/South Central

Livestock production in Minnesota is the other major component of Minnesota's agricultural base. Livestock and poultry in Minnesota had a total 1979 value of 2.1 billion dollars. Cattle comprised 80.5% or 1.7 billion dollars of this value; hogs and pigs accounted for 17.5% or .37 billion dollars; the remaining 2% or 40 million dollars consisted of sheep, lambs, chicken, and turkeys.[2] The average size of the 104,000 farms in Minnesota is 291 acres. Average net farm income is $15,865.[3]

Agribusiness in Minnesota: New Potential

Agribusiness may hold the largest growth potential for the state. Minnesota has experience processing raw products at production sites in the mining industry. Though this industry's contribution to GSP is expected to decline, the on-site processing knowledge can be applied to the on-site processing of grain products. Possible products of the future are alcohol from corn and most other agricultural products, fructose from corn or sugar beets, and oil from sunflowers. The Minnesota Department of Economic Development is in the process of conducting a year-long study to evaluate the leading crops in Minnesota, their adaptability to near-site processing, and what state-imposed costs may be inhibiting such development. They will then make recommendations to encourage their development to the legislature.

One point which appears to be the turning point in all such processes, is the ability to sell all the products produced. For example in alcohol production from corn, other products such as sugar starches and a high protein waste which makes an excellent cattle feed are generated. To look at just the economics of alcohol production would portray a negative potential. However, since most of our cattle production takes place near the corn areas, the by-products generated by alcohol production would have a ready market. Hence the economics become much more promising. And possibilities for consortium-type businesses become more feasible, and in many cases will become a necessity.

Conclusion

The agribusiness industry in Minnesota will continue to thrive. As with the forest industry, new and innovative uses for the raw products can and do lead to increases in state revenue and employment. Near-site processing appears to be the most promising new area for Minnesota's agribusiness industry. Studies such as those being done by the Department of Economic Devleopment emphasize the awareness of this potential. However, public and private cooperation will be needed to convert this potential to reality.

Footnotes

1. Minnesota Crop and Livestock Reporting Service, Minnesota Agricultural Statistics, 1980. 1978 sugarbeet value.
2. IBID.
3. IBID.

High Technology

HIGH TECHNOLOGY

When President Carter placed an embargo on the export of high technology to Russia as a result of the invasion of Afghanistan, several questions were raised. What industries and what products constitute high technology? There is no definitive answer. Each proposed export is evaluated by the Department of Commerce on a case-by-case basis. Clearly the definition of high technology is illusive. For our purpose, we shall define high technology industries as those which spend a high percentage of dollars for research and development (R and D) when compared to sales.

High Technology Industry

$$\frac{\text{R \& D}}{\text{Sales}} \geq 3.0\%$$

The top five industries by this definition are pharmaceuticals (5.4%), electrical machinery (3.6%), aerospace (3.5%), chemicals (3.1%), and office machinery (3.1%)[1]. Of the top six corporations in Minnesota, three meet this definition: 3M, Honeywell, and Control Data. Together they employ 50,000 Minnesotans and an additional 200,000 nationwide. Their 1979 revenues were 11 billion dollars[2].

In addition to these large high technology companies, there are numerous smaller companies in Minnesota that meet our definition of high technology. In terms of growth, of the top 100 small businesses in the nation, Minnesota had 5, of which 4 may be considered in high technology fields (Exhibit 31). Based strictly on a percentage of population, Minnesota would have only 2 of the top 100. Obviously the business climate in Minnesota is a favorable spawning ground for high technology industry (Exhibit 32). Perhaps most indicative of this was the naming of the University of Minnesota as the permanent home site of the Charles Babbage Institute for the History of Information Processing. The computer field is usually considered the epitome of high technology and with 13 major universities competing to house the Institute (the only one of its kind in the world) the University of Minnesota was chosen in part by the strength of the state's computer industry. It is also the strength of high technology industries that has helped to keep Minnesota's unemployment rates below the national average.

Conclusion

High technology will continue to play a major role in the state's economy. The highly educated labor force, excellent public and private research facilities, and overall national strength and growth of high technology industries insure Minnesota's continued economic growth and development.

Footnotes

1. Intangible Capital and Rates of Return, Kenneth Clarkson, 1977.
2. Corporate Report, November 1979/Greater Minneapolis, August 1979.

Exhibit 31

MINNESOTA FIRMS IN 1979 "INC. 100"

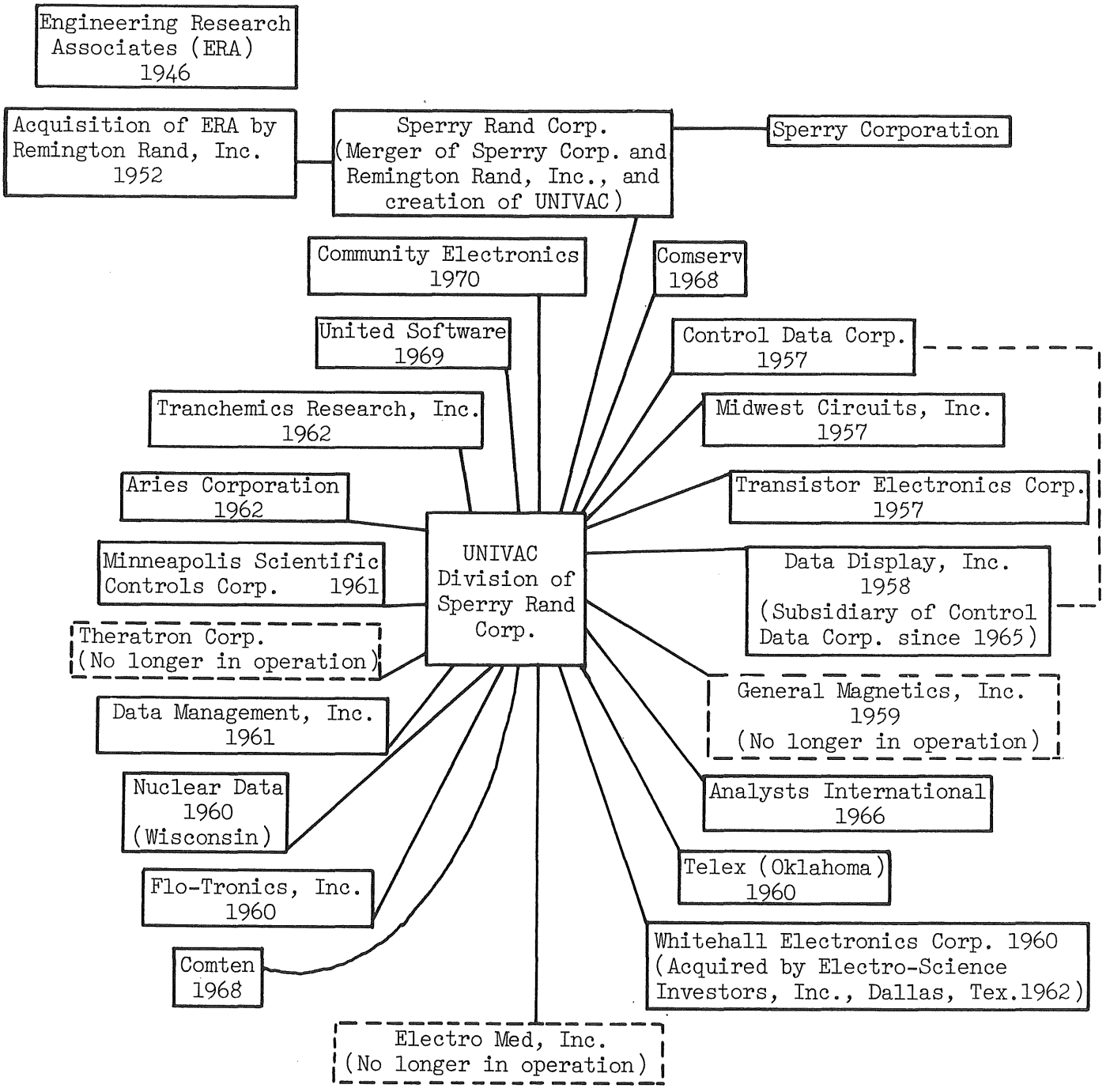
Rank '80	Rank '79	Company	Sales Growth 1975-79 Increase	Sales Growth 1975-79 Compound annual rate	Closing date	'79 Sales ($ 000)	'75 Sales ($ 000)	'79 Net Income ($ 000)	'75 Net Income ($ 000)	'79 Net Income as % of Sales	No. of Employees	Acquisitions '75-'79	Date Inc.	CEO	Business Description
2	5	Gray Research Mendota Heights	8,292%	338%	12/31	$ 42,715	$ 509[1]	$ 7,819	$ (887)	18.3%	524	No	1972	S. R. Gray	Mfr. large-scale computers
17	17	Econo-Therm Energy Systems Minnetonka	1,405	97	2/28	19,945	1,325	(862)	(218)	NA	445	Yes	1961	M. F. Myers	Mfr. process & waste disposal systems
73	-	Data Card Minnetonka	424	51	3/31	44,400	8,467	3,938	922	8.9	1,400	Yes	1969	W. K. Drake	Mfr. embossing equip. for plastic cards
82	70	PaR Systems St. Paul	372	47	4/30	11,335	2,408	915	139	8.1	240	No	1961	Karl Neumeier	Mfr. remote handling equip.
89	95	CPT Hopkins	345	45	6/30	34,071	7,660	3,515	654	10.3	451	No	1971	D. F. Schell	Mfr. word processing machines

Source: INC Magazine, May 1980.
High Technology Firm.

[1] 1976 figure; no revenues in 1975.

Exhibit 32

EXAMPLE OF TECHNICAL COMPANY FORMATIONS AND SPIN-OFFS*
ORIGINATING WITH ENGINEERING RESEARCH ASSOCIATES (ERA)
(ALL ARE TWIN CITIES COMPANIES EXCEPT AS NOTED)



*Note: The term "spin-off" may be misleading. For our purposes, it is defined as follows: A company whose product is similar or directly related to the product of the company for which its founders formerly worked.

Source: "The Development of a Potential Research and Development Complex, A Study of Minneapolis-St. Paul," Kirk Draheim et al, Stanford Research Institute, July, 1966, p. 47. Updated by the Citizens League.

Forestry

FORESTRY

When thinking of the forest products industry in Minnesota, the image of the small town sawmill by the stream often comes to mind. Today this small town sawmill no longer exists. The forest industry in Minnesota today has become a dynamic expanding industry. Small mills have been closed by competition from larger, more efficient, and better financed mills. In fact, the number of mills has declined from 1,861 in 1953 to 253 in 1973, but the average volume of production per mill has increased several times[1]. The forest products value to Minnesota of 1.5 billion dollars in 1977 gives an indication of its worth to the state (Exhibit 33). The industry also employs more than 40,000 people[2].

Forest Resources

Of the 18 million acres of forested land in Minnesota, the Department of Agriculture has classified 16 million acres as commercial timberland[3]. Exhibit 34 shows how northern Minnesota dominates the commercial forestland base. Of the total forested land, 53% is publicly owned, 41% is owned by farmers and other private landowners, and only 6% is owned by the timber industry.

The northern forests are comprised of hard and soft woods, the most common of which is aspen. The southeastern forest is composed of primarily hard woods. Minnesota's soft woods are currently being used at a rate approximately equal to annual production. On the other hand, hard woods, particularly aspen, are under utilized. It is estimated that Minnesota now has an annual timber surplus of 2.5 million cords. If this surplus is not harvested within 20 years, most of it will be lost to natural death and the land will revert to less productive vegetation. Hence, the recommended solution is to find new uses for the overmature surplus, clear it, and replace it as it is harvested with balanced levels of a superior growing stock in scientifically managed forest plantations. Intensive culture of selected species, including hybrid poplars, promises yields five to eight times higher than present timber stands.

New Business Opportunity in the Forest Products Industry

Standard Industrial Classifications 2400, Lumber and Wood Products, and 2600, Pulp, Paper and Paperboard, are the two major classifications directly related to the forest products industry in Minnesota. In 1979 they accounted for $446,379,000 or 58% of all new and expanding manufacturing in Minnesota. Increased demand and new uses for wood, forest products, and previously unusable species such as aspen account for much of this increase. The Department of Economic Development in its report Economic Aspects of Minnesota Forest Products Industry has identified several

new uses for Minnesota forest resources. The following paragraphs from this report highlight three new business areas: wood as a fuel source, wood for waferboard, and wood as an animal feed.

Wood, once a traditional source of energy, is again finding a market as an alternative to high priced coal, oil, and gas. Waste wood which will sell for about $6 per ton, yields about 4500 BTUs per pound compared to coal which sells for $50 per ton and yields 12,000 BTUs per pound. In addition, wood burns cleaner often saving the high price of pollution control equipment.

Waste wood is pelletized and can be burned in conventional boilers without major modifications. Stillwater State Prison recently began burning wood pellets made of chips from diseased elm trees and other wood by-products in lieu of coal to heat the prison. The chips come from various chipping facilities in the state and are processed into pellets at Guaranty Fuels, Inc., located on the grounds of the prison.

Of the 40,000 to 80,000 tons of pelletized wood that the plant will produce annually, approximately 15,000 tons of the pellets will be used as the prison's sole fuel, with the remainder sold to private companies, according to Dan O'Brien, information director at the Minnesota Department of Corrections.

By using the cleaner-burning pellets, the state will save an estimated $1 million for pollution control equipment that would have been required if the prison continued burning coal.

In addition to new wood fuel products, some lumber companies and institutions in Minnesota are burning non-processed wood waste, such as wood chips, sawdust, bark, and greens. Collectively, they are referred to as "hammerhog" fuel.

Wes Hedstrom, of Hedstrom Lumber in Grand Marais, said his mill has been burning unprocessed wood waste for fuel for the past five years. Burning the wood waste in place of oil has saved the mill an estimated $27,000 per year.

Another even more promising use for the abundant aspen resource is particle or wafer board. This product is designed to compete with plywood.

"It is manufactured from large aspen wafers bonded together by a waterproof adhesive. Many species may be used to construct particleboard, however, aspen is preferred because of its low density," said Professor

Roland Gertjejansen at the Department of Forest Products, University of Minnesota.

Blandin Wood Products in Grand Rapids, is the only waferboard plant in Minnesota. However, Potlatch Corporation recently announced its plans to construct a waferboard plant in Bemidji that is expected to be completed early in 1981.

The species Potlatch will use include aspen and balm of gilead poplar, which are all hardwood surpluses in Minnesota.

A third usage and one which is very important to farmers is the usage of aspen as an animal feed. The Department of Animal Science at the University of Minnesota, in conjunction with Superwood Corporation in Duluth, conducted experiments using a wood by-product in animal feed.

The by-product, which is naturally found in hardwoods, is called hemicellulose extract. Because its sugar content is naturally high, it may conceivably be substituted for cane molasses that is sometimes mixed with animal feed, said Wayne Johanson, vice president of technical services at Superwood Corporation.

The results were favorable and, within a reasonable amount of time, Superwood will consider marketing the extract, Johanson said. Presently, the waste extract is processed at a local sewage treatment plant.

Another development involving aspen as an animal feed ingredient has received enthusiastic support from Tri State Lumber Cooperative in Duluth, according to John Fisher, manager of Tri State. Experiments conducted at South Dakota State University since 1975 have indicated that aspen, in the form of dry pellets or as a silage product, may be successfully substituted for other roughage in the diet of beef cattle and dairy cows. The primary advantage of aspen as a roughage substitute is that it has an energy value, compared to hay and other roughage products, which do not, Fisher noted.

Several major feed companies and two fiber companies in Minnesota have shown interest in marketing the aspen product and it has the support of the Minnesota Department of Natural Resources, Fisher said. Presently, the product is in the process of being approved by the Federal Drug Administration.

These new businesses represent only the tip of the iceberg. There is unlimited potential in wood and wood products. Continued development of projects such as those mentioned

and other new innovative projects are dramatically changing the role of the forest products industry in Minnesota and providing many new business and employment opportunities.

Conclusion

Minnesota has a large forest resource, 18 million acres. Technology will continue to find new uses for these forest products, even the aspen, formerly considered a useless weed tree.

Footnotes

1. Minnesota Department of Economic Development, Economic Aspects of Minnesota Forest Products Industry.
2. Minnesota Department of Economic Development, Minnesota Industrial Development News, 1977.
3. Minnesota Department of Economic Development, OP. CIT.

Exhibit 33

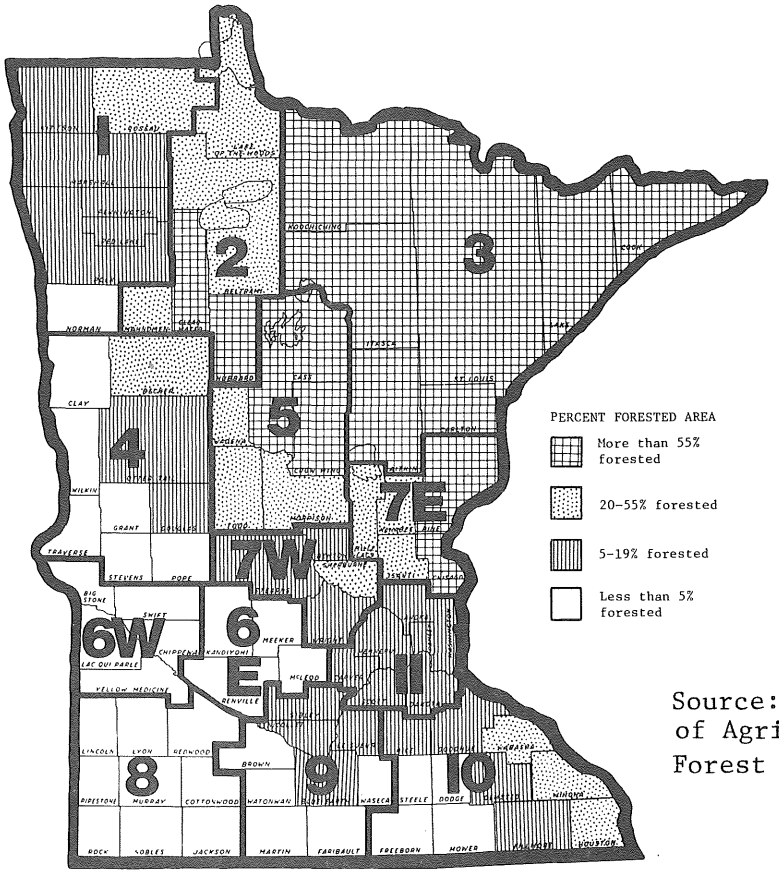
Value of Forest Products Harvested in Minnesota
1977

Pulpwood	1,332,819 cds.	$ 579,344,290
Lumber, Logs, Bolts	195,000,000 bd. ft.	26,200,020
Christmas Trees, Wreaths, etc.	3,100,000 pcs.	10,850,000
Specialty Wood Products	100,686 cds.	13,531,300
Posts	1,750,180 pcs.	
Poles	158,995 pcs.	4,828,580
Piling	171,000 Lin. ft.	
Fuelwood	379,500 cds.	8,728,500
Railroad Ties	172,205 pcs.	1,131,280
By-Products & Mill Residue	-	14,711,960
Total value of forest products harvested in Minnesota		$ 659,325,930
Total value of secondary manufacturing of forest products harvested in Minnesota and remanufacture of imported wood		$ 804,377,635
		$1,463,703,565

Source: ECONOMIC ASPECT OF MINNESOTA, Forest Products Industry, Department of Economic Development.

Exhibit 34

PERCENT OF FORESTED LAND IN MINNESOTA BY COUNTY



Source: U.S. Department of Agriculture Forest Service 1979

Volume of Growing Softwood and Hardwood Stock on Total Commercial Timberlands - 1977 (million cubic feet)

Softwood Species	Minnesota
Eastern White & Red Pine	671
Jack Pine	911
Spruce & Balsam Fir	1,764
Eastern Hemlock	-
Other	622
Subtotal	3,968
Hardwood Species	
Selected White Oak	308
Selected Red Oak	556
Hard Maple	204
Soft Maple	146
Ash	601
Bass Wood	521
Cottonwood & Aspen	4,277
Other	2,281
Subtotal	8,894
Grand Total	12,862

Mining

MINING

Minnesota's 1979 total production value of 2.0 billion dollars ranks it first among all states in total value of non-fuel minerals. Of this, 95% is obtained from the iron ore industry with a 1979 production value of 1.9 billion dollars (Exhibit 35). An additional 100 million dollars were derived from other mineral productions, primarily sand, gravel, and stone (Exhibits 35 and 36). Though iron ore in the processed form of taconite pellets currently leads mineral production in Minnesota, minerals such as copper and nickel may play a significant role in the Minnesota mining industry in the future. Deposits of copper (Cu) and nickel (Ni) in Region 3 are estimated to contain 1/8 of all the copper in America and 1/4 of all the nickel in the world. Their mineral value has been estimated at 65 billion dollars at July 1980 prices[1]. The state also has over 7 million acres of peat which may become a viable energy source of the future. In addition, new technologies such as direct reduction of iron ores and gasification of peat may also increase the value of these resources to the Minnesota economy (New Technologies section). Questions regarding environmental and social consequence of the implementation of these technologies are currently being addressed by private concerns and the state and federal governments.

Taconite

In the late 1940s, as the natural iron ores began to decline in Minnesota, technology was developed to take advantage of vast reserves of iron bearing rock, taconite. With current usage patterns, there is sufficient taconite to last 200 years. Today the iron industry in Minnesota is synonymous with the taconite industry. This association is justified since 94% of all iron ores produced in 1979 were in the form of taconite pellets[2].

Taconite is a flint-hard rock containing 20 to 30% iron. After blasting, crushing, and fine grinding, the iron is removed from the silica by magnetic separators and the residue of concentrated powder is formed into balls. These are baked into hard iron ore pellets which contain more than 60% iron[3]. In 1979 production of taconite totalled 55,292,000 tons and Minnesota's taconite industries have the capability to produce up to 65 million tons. Minnesota's current production provides about 60% of all iron ore produced in the United States. Unfortunately, the taconite industry in Minnesota is heavily tied to the fortunes of the country's major industries, i.e., steel and autos. Recent declines in these areas have led to high unemployment in Region 3 (the taconite region) and reduced production of taconite. As the fortunes of these major industries improve, the 15,000 taconite industry employees will again return to the high standard of living provided them by the taconite industry.

Non-Ferrous Minerals in Minnesota

As is seen in Exhibit 35, stone, sand, and gravel comprise most of the non-ferrous minerals mined in Minnesota. Though they exist in some quantity in all 87 counties, most of the mining is done near large metropolitan areas to meet the needs of the construction industry (Exhibit 36).

Other minerals such as clays, peat, lime, and gem stones are mined throughout the state but currently provide relatively little income to the state.

Copper and Nickel Reserves in Minnesota

As was mentioned in the introduction, the current value of copper/nickel reserves in Minnesota approaches 65 billion dollars. Much of this reserve is in the area near Ely, south of Hoyt Lakes in Lake and St. Louis counties (Region 3). It is estimated that there are 4 billion tons of mineralized sulfide material which is .66% copper and .20% nickel. Amex Exploration Inc. has already obtained more than 60,000 tons of this mineralized material for metallurgical testing and is assessing the feasibility of developing a copper/nickel mine and related processing facilities[4]. However, even if the go ahead were given today, it is estimated that up to six years of pilot studies and two to four years of construction time would be required before actual mining operations could begin.

But many considerations other than economics are of significant concern in this situation. Environmental and social considerations are of high priority due to the uniqueness of the Boundary Waters wilderness areas. Though law prohibits mining directly in the Boundary Waters area, fears of air and water pollution from nearby mines cause the primary concern. Obviously a decision to mine the copper/nickel reserves will not be an easy one.

Benefits such as income to the state, new employment, associated industrial development, etc., will need to be balanced with the environmental concerns before any final decision is made. However, regardless of what decision is reached, Minnesota is fortunate to have 65 billion dollars in its underground bank.

New Technologies for the Mineral Industry

Direct reduction and gasification are two terms which will soon be in the vocabulary of all Minnesotans concerned about the future of Minnesota's mineral industry. The following article quoted from the July 1980 Corporate Report gives an excellent overview of the direct reduction process.

> Direct reduction iron, or sponge iron, is produced

through a process which removes oxygen from iron ore to produce a pellet that is up to 100% iron. The process is not a new one, but it has not been considered cost-effective by large steel producers until recently.

Sponge iron is looking more attractive all the time, attractive enough to have become the subject of a commission study of the feasibility of sponge iron production in northern Minnesota, attractive enough for Pickands Mather, Hibbing Taconite's parent company, to be studying the value of sponge iron production, and attractive enough for a Hibbing, Minnesota, engineering firm to be conducting a feasibility study.

One of the foremost advantages of sponge iron is that it is 90 to 100% pure iron and can therefore be used in electric furnaces rather than in the high-energy, high-waste blast furnaces. That factor in itself could mean a shift in steel production. For example: Electric furnace operators in Minneapolis and St. Paul would be able to use sponge iron instead of the scrap iron they now use. This would reduce transportation costs because sponge iron is concentrated iron and scrap is bulk.

The prospect of sponge iron actually becoming an important factor in steel production is still far in the future, according to industry engineers. The process has some problems that must be resolved. For example, iron ore contains up to 7% silica and reducing the silica content to acceptable levels is an expensive process - so expensive that Sidbec, a Canadian producer which has been operating a direction reduction operation near Montreal for about 10 years, has advised Minnesota iron ore producers against getting into direct reduction.

Also, because direct reduction requires high heat and carbon monoxide, the question of an energy source has to be considered. University of Minnesota engineering professor Kenneth Reid is working on a new sponge iron method called the plasma process, which involves an electric arc system. "The plasma process will compete with conventional technology in regions where electrical power is cheap or where the advantages of low pollution technology and economical operation on a small scale are desired features," he says.

Which brings up another problem: pollution. The environmental impact of a sponge iron operation in northern Minnesota has yet to be determined.

There are problems, and not insignificant ones, but advocates of the sponge iron process are nonetheless

growing in number. They point to reduced transportation costs and the potentially large market for sponge iron near the location of the raw material. A spokesman for U.S. Steel says building sponge iron production facilities is a much more viable option for the industry in northern Minnesota than building a steel mill there will be, and says he believes sponge iron will be a reality. It is estimated that the introduction of the sponge iron process at only one of the many Iron Range taconite facilities could create up to 5,000 new jobs. That's an important consideration in a region that depends on the iron and steel industry for its livelihood - and especially important at a time when softening demand for steel is forcing taconite facilities to lay off hundreds of workers.

To northeastern Minnesota in the 1980s, sponge iron could provide the economic boost taconite did in the '60s and '70s, reviving a lagging industry and boosting an economy in trouble[5].

Gasification

Gasification is the process of converting an existing energy form into natural gas. Though most often associated with coal, gasification in Minnesota is associated with peat. Minnesota peat resources are enormous, about 7 million acres or half the United States total excluding Alaska. Of this 7 million acres, about 3 million acres contain accessible fuel quality peat deposits which if burned directly could supply the state's total energy needs for more than 50 years[6]. This 50-year figure, however, should only be used to understand the magnitude of Minnesota peat reserves. Transportation costs of peat in its natural form make it uneconomical to transport for fuel usage. As such, the peat reserves of Minnesota must be converted to an alternate form. Natural gas appears to be the most technologically feasible alternative. The Minnesota Gas Company (Minnegasco) has developed technology for peat gasification and has established a pilot peat gasification process that will begin operating in September 1980. Minnegasco has peat lands in Regions 1 and 3 (Koochiching, Beltrami, and Lake of the Woods counties). Results from the pilot program may be used to consider the feasibility of a full-scale plant with a 250 million cubic feet per day output at a cost of over 750 million dollars. This plant could employ more than 1,000 employees and have an annual output equal to one-fourth of Minnesota's 1974 natural gas consumption. As with direct reduction, several environmental considerations come into play but, again, as with direct reduction, Minnesota is fortunate in having this enormous resource "in the bank".

Conclusion

The iron industry will continue to dominate the mineral industry in Minnesota. The importance of this industry to Minnesota may be further enhanced by the implementation of direct reduction technologies. Mineral resources such as copper, nickel and peat, not now economically significant, may soon be a major source of income for Minnesota. Regardless of the direction in which Minnesota mining evolves, environmental considerations will be important and cost-benefit analysis on all levels (social, political, and environmental) is and must continue to be done.

Footnotes

1. Estimates from the Regional Copper Nickel Study placed their value at approximately 50 billion dollars. However, prices used were 68¢/lb., Cu, and 2.30¢/lb., Ni. July 1980 prices were 95¢/lb., Cu, and 3.25¢/lb., Ni, thereby increasing the value of the deposits to approximately 65 billion dollars.
2. U.S. Department of the Interior, Bureau of Mines, Minerals in the Economy of Minnesota.
3. Minnesota Department of Economic Development, Minnesota Statistical Profile 1979.
4. U.S. Department of the Interior, OP. CIT.
5. Corporate Report, July 1980.
6. Minnesota Department of Economic Development, Industrial Development News.

NONFUEL MINERAL PRODUCTION IN MINNESOTA[1]

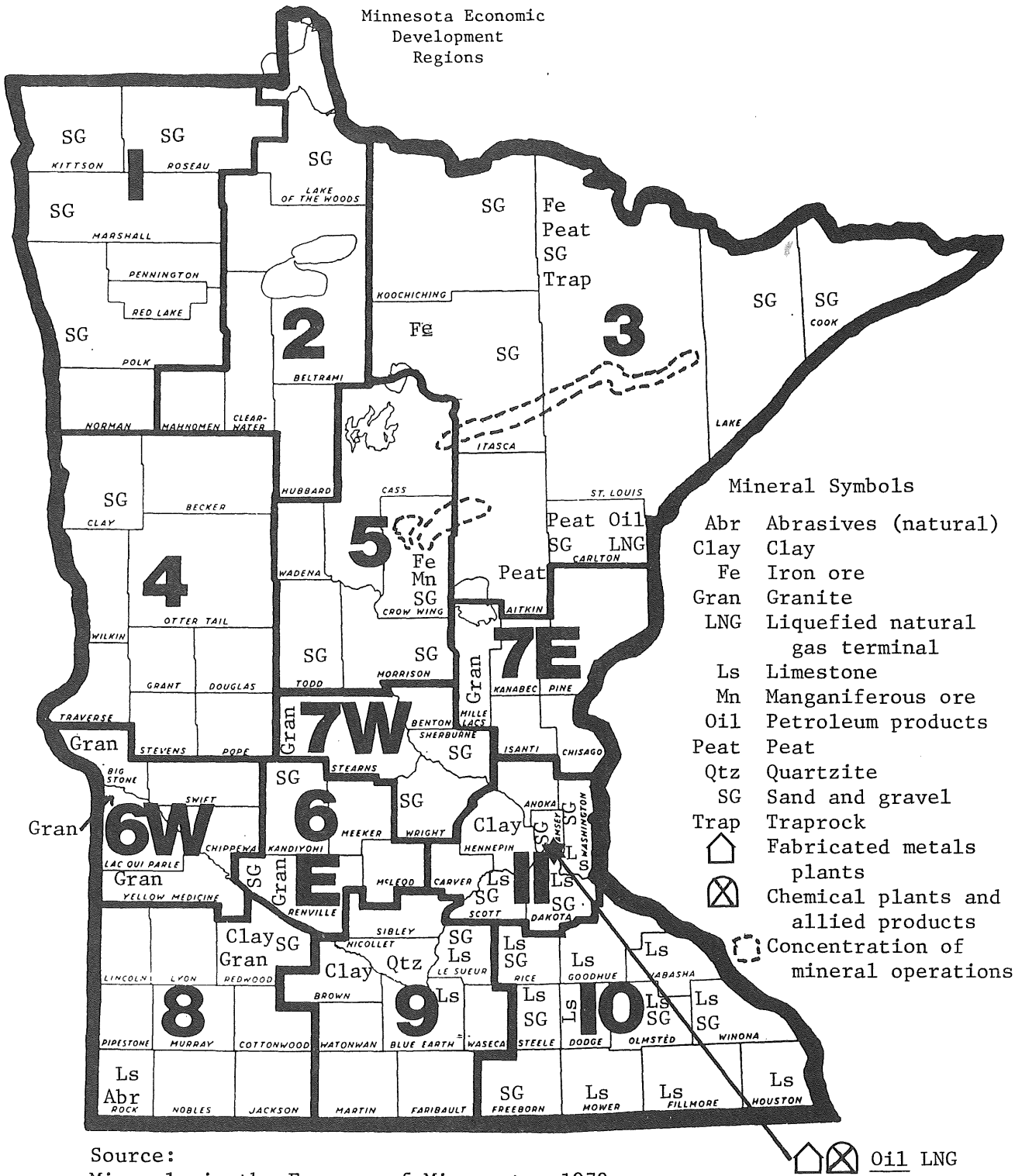
Mineral	1978		1979p	
	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays[2] ----------thousand short tons--	174	$2,090	138	$1,927
Gem stones----------	NA	5	NA	5
Iron ore (usable)----------thousand long tons, gross weight--	56,473	1,627,099	60,107	1,960,245
Lime----------thousand short tons--	116	4,263	67	2,777
Manganiferous ore----------short tons--	253,399	W	W	
Peat----------thousand short tons--	20	716	17	660
Sand and gravel----------do--------	31,080[3]	54,970[3]	31,000	62,000
Stone:				
Crushed----------do--------	9,666	20,730	9,973	21,649
Dimension----------do--------	35	9,356	28	10,859
Combined value of abrasive stone (1979), clays (kaolin), industrial sand (1978), and values indicated by Symbol W----------	XX	5,502	XX	2,346
TOTAL----------	XX	1,724,731	XX	2,062,468

[1] Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[2] Excludes kaolin; value included in "Combined value" figure.
[3] Excludes industrial sand; value included in "Combined value" figure.
p Preliminary. NA Not Available. W Withheld to avoid disclosing company proprietary data; value included in "Combined value" figure. XX Not applicable.

Source: U.S. Department of the Interior, Bureau of Mines.

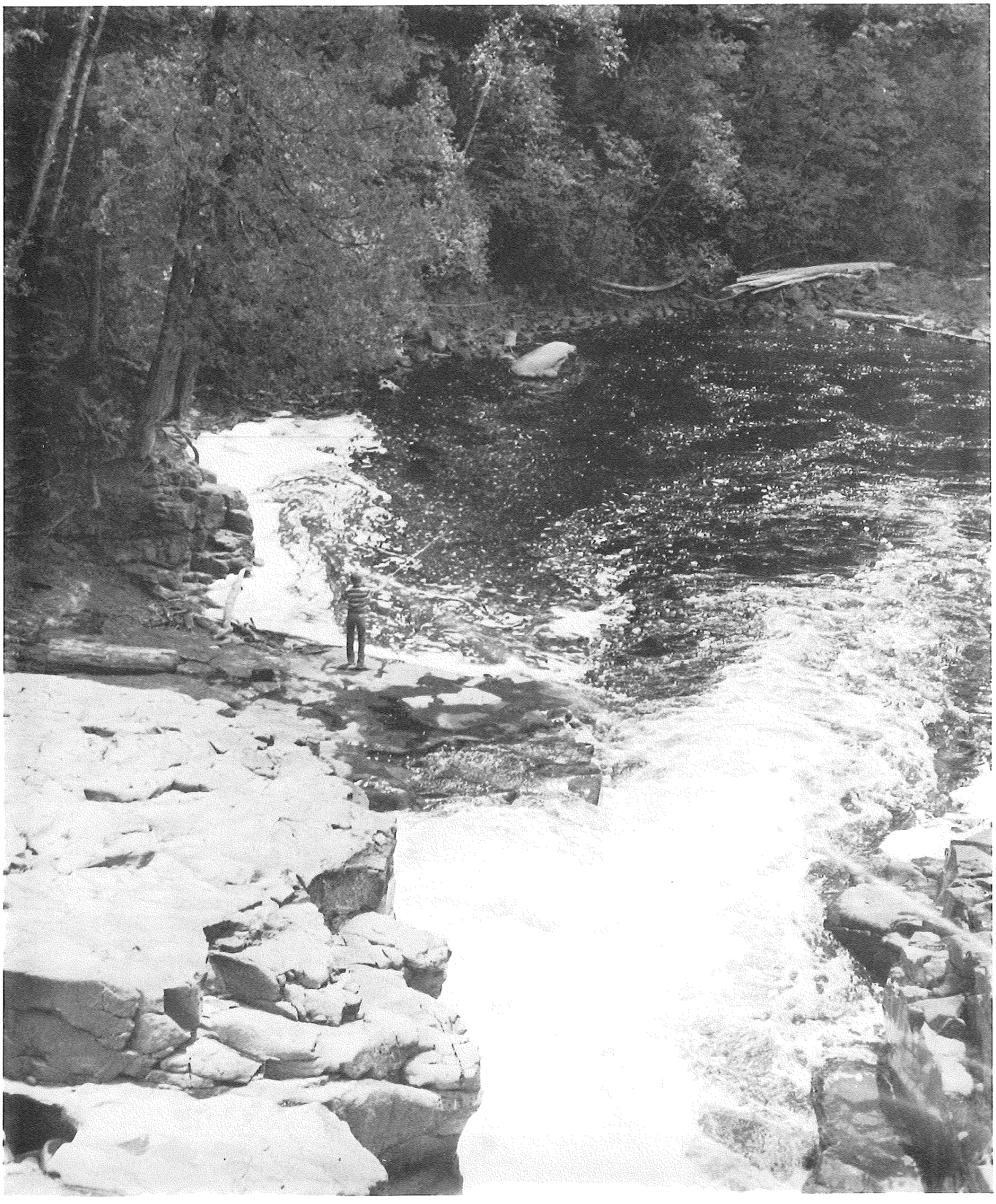
Exhibit 36

MINERAL OPERATIONS IN MINNESOTA



Source:
Minerals in the Economy of Minnesota, 1979
Minnesota Department of Natural Resources

Tourism



TOURISM

Tourism in Minnesota generated 1.8 billion dollars in 1979. As can be seen from exhibit 37, many areas of the tourist industry experienced gains from 1978 totals. The third quarter (July, August, and September) accounts for the largest share of revenues in all regions, and is particularly strong in regions 2, 3, 4, and 5.

A Minnesota Tourism Bureau study completed in December 1979 to assess tourism in the Midwest reveals the following characteristics regarding the Minnesota tourist.

Over 50% of the trips taken in Minnesota are taken by families with incomes between $8,000 and $20,000. In attracting higher income travelers (over $30,000), Minnesota ranks third behind Wisconsin and Michigan.

According to the study, Minnesota is not capturing its share of professionals to vacation in the state. The Midwest average is 19.9% of all tourists are professionals. Minnesota's average is 17.6%. It is the professionals who are most likely to travel and to travel most often.

Minnesota is above the Midwest average in attracting the 55-59 age group. This group travels frequently with 47% taking two or more vacations per year. Minnesota is below average in the 30-34 and 45-49 age groups which are very important because 42% take two or more vacations annually.

Minnesota does not appear to be attracting its share of professionals, post graduates, and residents of medium size cities (populations between 500,000 and 1,000,000) to vacation in the state. Since these groups/categories of tourists have a history of taking frequent vacations, Minnesota should gear its marketing strategies to attract these individuals.

Attracting 13% of Midwest vacation trips ranks Minnesota fourth as a Midwest vacation destination behind Michigan and Wisconsin, 21% each, and Illinois with 14%. Since most Minnesota vacationers were repeat visitors, it appears marketing strategies need to be designed to attract new visitors. Most in-state vacations (52%) are one to four day trips to visit friends or relatives. Other reasons for visiting Minnesota, in order of preference, are: shopping, relaxing, fishing, boating, and hiking. The study concluded this short vacation trend will continue and demands for planned activities at resort sites will increase[1].

Summary

Tourist facilities in Minnesota are competitive with other Midwestern states. What remains to be accomplished is more

effective communication of these recreational facilities to potential users. Minnesota's fortune is that much of its tourist appeal comes from natural attractions such as lakes and forests. Organizations on community, regional, and state levels can and should coordinate their communications. One such area that could benefit from a collective organization would be the boundary water recreation area. Publicizing the entire area rather than individual lodges or establishments could increase tourism for all establishments in the area. Changes such as these will aid Minnesota tourist industry in reaching its full potential of development.

Footnotes

1. For a copy of the complete report, contact the Minnesota Department of Economic Development, Tourism Bureau, and request the March 1980 Tourism News.

Exhibit 37

Minnesota Tourist-Travel Indicators (with Sources)
1979 Compared to 1978

INDICATOR	Percent Change
Hotel Lodging Receipts (9 months) (Minnesota Dept. of Revenue, Tax Research Division)	+ 14.7
Eating & Drinking Receipts (Minnesota Dept. of Revenue, Tax Research Division)	+ 12.9
Duluth Hotel-Motel Room Receipts (Bureau of Business and Economic Research, University of Minnesota, Duluth)	+ 3.7
Minneapolis-St. Paul Hotel Occupancy Rates (Laventhol and Horwath)	+ 12.7
Minnesota Budget Motels Occupancy Rates (11 mos.)	- 4.2
Employment in Lodging Industry (Minnesota Dept. of Economic Security)	+ 6.1
Employment in Eating and Drinking Establishments (Minnesota Dept. of Economic Security)	+ 5.9
Gasoline Delivered for Highway Use (Minnesota Dept. of Revenue, Petroleum Tax Division)	- 4.4
Highway Traffic Counts - Total Statewide System (Minnesota Dept. of Transportation)	- 0.8
Highway Counts - Average daily Traffic on Selected Tourist Routes (Minnesota Dept. of Transportation)	- 3.6
Highway Information Centers (Minnesota Dept. of Transportation)	- 15.9
Airline Passengers at Rochester Municipal Airport (Rochester Airport Company)	+ 14.7
Airline Passengers at Duluth International Airport (Duluth Airport Authority)	+ 4.6
Airline Passengers at Minneapolis-St. Paul International Airport (Metropolitan Airports Commission)	+ 19.6
Airline Passengers Enplaned at Eight Minnesota Communities Served by Scheduled Airlines (Civil Aeronautic Board)	+ 11.2
Car Rental Receipts at Minneapolis-St. Paul International Airport (Metropolitan Airports Commission)	+ 23.2
Minnesota-Canadian Border Crossings-Southbound (11 mos.) (U.S. Dept. of Justice, Immigration and Naturalization Service)	- 2.6
State Park Attendance - 76 State Parks and Areas (Minnesota Dept. of Natural Resources)	- 9.1
State Park Camping - 76 State Parks (Minnesota Dept. of Natural Resources)	- 18.6
Minnesota Historic Sites (Minnesota Historical Society)	- 4.3
National Monument - Pipestone (U.S. National Park Service)	- 20.2

Additional Resources

ADDITIONAL RESOURCES

Information Sources - Subject

Throughout the publication information has been presented in sufficient detail to portray the general condition of Minnesota's business climate. For those desiring further information, this addendum by topic area has been prepared. The format is as follows:

General description concerning types of information available.
Name of Publication
Contact Organization

Since some of the organizations are mentioned several times, their addresses are listed below and only their names appear in the addendum listing.

Minnesota State Planning Agency
Office of the State Demographer
101 Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101

Agriculture Extension Service
University of Minnesota
St. Paul, Minnesota 55108

Department of Economic Security
Research and Statistical Services Office
390 North Robert Street
St. Paul, Minnesota 55101

Minnesota Business Partnership Inc.
4314 IDS Center
Minneapolis, Minnesota 55402

Minnesota Department of Economic Development
480 Cedar Street
101 Hanover Building
St. Paul, Minnesota 55155

Minnesota Department of Transportation
Transportation Building
John Ireland Boulevard
St. Paul, Minnesota 55155

Population

Current Population by County and Regions
Population Estimates for Minnesota Counties 1979
Minnesota State Planning Agency, Office of the State Demographer

Future Population by County and Region

Revised Population Projections for Minnesota Counties
Office of the State Demographer
or
Population Projections for Minnesota through 1990, Number 32, March 1980
Agricultural Extension Service

Urban and Rural Population Component Changes

Bulletin # 33
Agricultural Extension Service

Labor Force

Labor Force Projections

How Many Workers? Projections of the Minnesota Labor Force 1977-1990
Office of the State Demographer

Employment By Age, Race, Sex, Marital Status, etc.

Employment in Minnesota 1977
Office of the State Demographer

Job Demand, Turnover, Hires for Many Occupations

Occupational New Hire Study
Minnesota Department of Economic Security, Research and Statistical Office

Directory of All Publications and Services Provided by the Department of Economic Security

Minnesota Labor Market Information Directory: This resource is the guide to sources for every area related to employment in the state
Minnesota Department of Economic Security

Quarterly Employment and Wages by County for Major Industrial Groupings

Minnesota Employment and Wages by County for quarter desired
Minnesota Department of Economic Security

All Characteristics of the Labor Force in Detail

Minnesota Labor Force 1977
Office of the State Demographer

Quarterly Review of Labor Force, Employment and Unemployment as Well as General Economic Condition of the State

Review of Labor and Economic Conditions for quarter desired
Minnesota Department of Economic Security

Unemployment

Monthly Labor Force, Employment and Unemployment Statistics
County Labor Force Estimates for month desired
Minnesota Department of Economic Security

How to Determine Unemployment Statistics for C.E.T.A. Purposes
Determining Unemployment Statistics for Comprehensive Employment and Training Act Funding Purposes
Rural Minnesota CEP Inc.
Box 647
Detroit Lakes, Minnesota 56501

Education

Educational Levels of Minnesotans by Age, Race and Most Pertinent Levels of Detail
Educational Attainment in Minnesota
Office of the State Demographer

All Other Questions:
Minnesota Department of Education
Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101

Land Usage

All Areas of Land Usage contact:
Minnesota State Planning Agency

Energy

Comparative Energy Costs Between States
The Minnesota Economy: How Does It Compare?
Minnesota Business Partnership Inc.

All Other Areas of Energy in the State
Minnesota Energy Agency
980 American Center Building
150 East Kellogg Boulevard
St. Paul, Minnesota 55101
Toll Free 1-800-652-9747

Transportation

Highways and All Transportation Facilities in the State in Surveyed Form
Minnesota Department of Transportation Plan
Minnesota Department of Transportation

Railroads

All facets of the Railroad Industry in the U.S. in Statistical Form
Yearbook of Railroad Facts 1980 Edition
Association of American Railroads
1920 L Street N.W.
Washington, D.C. 20036

Existing Rail Facilities for All Minnesota Cities

Contact the Minnesota Department of Transportation, Department of Highways, and ask for the list of spring highway restrictions. Over 850 Minnesota communities are listed.

Airlines

Present and Projected Minnesota Air Facilities of All Types, Projection to the Year 2000
Minnesota Department of Aeronautics
417 Transportation Building
St. Paul, Minnesota 55155

Waterways

Information on specific ports, contact the port authority of concern, example:
St. Paul Port Authority
25 West 4th Street
Suite 1305
St. Paul, Minnesota 55102
for information on the Ports of St. Paul

Taxes

Comparison of Minnesota's Corporate Tax Structure to Many Other States

The Minnesota Economy: How Does It Compare?
Minnesota Business Partnership Inc.

All Other Tax Areas

The Minnesota Guide
The Minnesota Department of Revenue
Centennial Office Building
St. Paul, Minnesota 55145

Revenue Bond Financing

Minnesota Annual Report 1979, Municipal Revenue Bonds
Department of Economic Development
(612) 296-4039

Wages

Income Levels by Counties
Median Income Levels by Counties 1977
Office of the State Demographer

Wage Data for Many Occupations by County
1979 Wage Data by County
Minnesota Department of Economic Security

Wage Data for Many Occupations and Industrial Groups
1979 Wage Data by Industry and Size of Firm
Minnesota Department of Economic Security

New and Expanding Industry

New and Expanding Industries
1979 Minnesota New and Expanding Industry
Department of Economic Development

Manufacturing and Retail Sales
1979 Manufacturing Sales by State, Region and Counties
1979 Retail Sales by State, Regions and Counties
Department of Economic Development

Agribusiness

All Areas of Agriculture and Its Importance to Minnesota
Minnesota Agricultural Statistics 1980
Minnesota Crop and Livestock Reporting Service
90 West Plato Boulevard
P.O. Box 70068
St. Paul, Minnesota 55107

Forestry

Economic Aspects of Forestry in Minnesota
Economic Aspects of Minnesota's Forest Product Industry
Department of Economic Development

All Other Forestry Questions
Forest Service
U.S. Department of Agriculture
1992 Folwell Avenue
St. Paul, Minnesota 55108

Mining

The Importance of the Mining Industry to Minnesota
1979 Minerals in the Economy of Minnesota
Division of Minerals
Minnesota Department of Natural Resources
Box 45
Centennial Office Building
St. Paul, Minnesota 55155

Tourism

Records, Indications and Explanations of Major Tourist Industries

Minnesota 1979 Tourist Travel Industry
Department of Economic Development

All Other Tourism Areas

Tourism Division
480 Cedar Street
Hanover Building
St. Paul, Minnesota 55101

Industrial Development Sites-Parks, Etc.

Profiles of over 250 communities and their industrial park facilities are maintained by the Department of Economic Development

Economic Development Designation/Qualification

Contact:

U.S. Department of Commerce
Economic Development Administration
104 Courts Building
316 Robert Street
St. Paul, Minnesota 55101

General Publications

Economic Activity Profiles of Minnesota's Major Economic Regions February 15, 1980

Untitled
Department of Economic Development

Effects of Demographic Changes in Minnesota to the Year 2000

Faces of the Future
State Planning Agency

Profiles of Leading Twin Cities Companies

Greater Minneapolis July, August 1979
Greater Minneapolis Chamber of Commerce
15 South Fifth Street
Minneapolis, Minnesota 55402

General Statistical Information for all Areas of Minnesota's Economy

Minnesota Statistical Profile
Department of Economic Development

General Comparison Minnesota and Remainder Midwest

Economic Data Guide
Northern Natural Gas
2223 Dodge Street
Omaha, Nebraska 68102

INFORMATION SOURCES - GEOGRAPHICAL

Many questions pertaining to individual regions can best be answered by the individual regional economic directors. The addresses of the executive directors and chairmen of each of the regional development commissions are listed below.

REGION	CHAIRMAN	EXECUTIVE DIRECTOR
Northwest (1)	Ervin Strandquist Newfolden, MN 56738 (218) 874-7305	Tom Jorgens 425 Woodland Ave. Crookston, MN 56716 (218) 281-1396
Headwaters (2)	Ralph Moberg 819 America Avenue Bemidji, MN 56601 (218) 751-5592	John Ostrem Mental Health Building Box 584 Bemidji, MN 56601 (218) 751-3108
Arrowhead (3)	Warren Youngdahl 200 Arrowhead Place 211 West Second St. Duluth, MN 55802 (218) 722-5545	Dave Martin 200 Arrowhead Place 211 West Second St. Duluth, MN 55802 (218) 722-5545
West Central (4)	Andy Leitch Route 1 Underwood, MN 56586 (218) 826-6969	James Myhra Administration Building Fergus Falls Community College Fergus Falls, MN 56537 (218) 739-3356
Region Five (5)	Felix Kujawa Buckman, MN 56317 (612) 468-6593	David Loch 611 Iowa Avenue Staples, MN 56479 (218) 894-3233
Six East (6E)	O. Homer Bach Atwater, MN 56209 (612) 974-8837 (B) (612) 974-8488 (H)	Eugene Hippe City Auditorium 311 West 6th St. Willmar, MN 56201 (612) 235-8504
Upper Minnesota Valley (6W)	Thomas Johnson Route 1 Milan, MN 56262 (612) 389-4922	Roy Lende 323 West Schlieman Appleton, MN 56208 (612) 289-1981
East Central (7E)	Richard L. Anderson 800 North 9th Ave. Princeton, MN 55371 (612) 389-4922	Robert Pulford Kanabec County Courthouse 18 North Vine St. Mora, MN 55051 (612) 679-4065

Central Minnesota (7W)	Ralph Thompson R.R. 3, Box 141 Belgrade, MN 56312 (612) 346-2637	Otto Schmid 2700 1st Street No. St. Cloud, MN 56301 (612) 253-7870
Southwest (8)	John Maurer Wabasso, MN 56293 (507) 342-5427 (507) 342-5629	Jerry Chasteen Box 265 Slayton, MN 55172 (507) 836-8549
Region Nine (9)	Kenneth Albrecht 101 No. Minnesota New Ulm, MN 56073 (507) 642-3630	Terence Stone 120 So. Broad St. Mankato, MN 56001 (507) 387-5643
Southeastern Minnesota (10)	Charles Miller 1200 Prairie So. Northfield, MN 55057 (507) 645-4105	Donald Hann 301 Marquette Bank Building South Broadway at 2nd St. S.E. Rochester MN 55901 (507) 285-2550
Metropolitan Council (11)	Charles Weaver 300 Metro Square Building 7th and Robert St. St. Paul, MN 55101 (612) 291-6359	

INFORMATION SOURCES - AGENCIES AND ORGANIZATIONS

In addition, several agencies provide assistance and funding for business in Minnesota. The following details those agencies, the type of assistance provided and their points of contact.

Agencies and Organizations to Contact in Minnesota.

Metropolitan Council

The Council generally functions as a coordinator and initiator of regional planning in the seven-county metro area. On a local or metropolitan development level, the Council reviews and comments on community plans and federal and state funding proposals, primarily on the basis of coordination with regional plans. Some funding of local programs is available, such as for housing, local arts, and the elderly.

Contact: Public Information - 612/291-6434

Metropolitan Council
300 Metro Square Building
Seventh and Robert
St. Paul, Minnesota 55101

Regional Development Commissions (RDCs)

The 12 Minnesota RDCs cover the entire state (the Twin Cities is Region 11, under the jurisdiction of the Metropolitan Council). The commissions are composed of local elected officials and citizens who formulate comprehensive regional community and economic development plans. They coordinate a number of federal and state grants and are involved in comprehensive planning, land use, transportation, housing, parks, health, and educational facilities planning.

Contact: Jerry Chasteen - 507/836-8549
Executive Vice Chair
Minnesota Association of Regional Commissions
Box 265
Slayton, Minnesota 56172

Minnesota Energy Agency

The Energy Agency collects data on energy, forecasts future energy demands, develops emergency allocation plans in case of energy shortages, and certifies the need for large energy facilities. They also develop and implement energy conservation programs, fund alternative energy development research, and provide energy information to the public. Community grants will be available in 1981.

Contact: 612/296-5175 or
1-800-652-9747 TOLL-FREE
Minnesota Energy Agency
980 American Center Building
150 East Kellogg Boulevard
St. Paul, Minnesota 55101

Minnesota Housing Finance Agency (MHFA)

The MHFA operates several programs that finance the housing needs of low and moderate income families. By issuing tax-exempt revenue bonds, the Agency can provide greatly reduced interest rates for construction, rehabilitation, and mortgage financing of owner-occupied and rental properties. The legislature has also appropriated funds to maintain and improve existing housing, to assist first-time home buyers, to encourage the construction of rental housing for large families, to finance accessibility improvements, to assist American Indians, and to encourage innovative approaches to energy conservation.

Contact: Heidi Ebeltoft - 612/296-9951
Minnesota Housing Finance Agency
200 Nalpak Building
333 Sibley Street
St. Paul, Minnesota 55101

Minnesota Rural Development Council

The 29-member Council recently changed its focus to provide a forum for identifying issues affecting rural Minnesota and to make policy recommendations for action by federal, state and local decision-makers. The Council is also examining the steps needed to determine the requirements for developing an intergovernmental "partnership" approach to a rural investment strategy.

Contact: Shirley M. Rutherford - 612/296-2115
Rural Development Council
State Planning Agency
200 Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101

Minnesota Pollution Control Agency (PCA)

The Construction Grants Unit of the Facilities Section provides financial aid for planning and constructing wastewater treatment facilities. The Surface and Groundwaters Section administers the Clean Lakes Demonstration Grants Program for control of natural land drainage run-off and actual in-lake treatment. Other concerns of the PCA include air quality, noise pollution, and solid waste.

Contact: Wastewater: Duane Anderson - 612/296-7205
Clean Lakes: John McGuire - 612/296-7242
Minnesota Pollution Control Agency
1935 West County Road B-2
Roseville, Minnesota 55113

Minnesota Department of Natural Resources (DNR)

The State Comprehensive Outdoor Recreation Planning Process provides regularly updated information to help all levels of government make optimum outdoor recreation investments. DNR also manages programs to preserve Minnesota's natural heritage, fish and wildlife, forests, state parks and recreation areas, minerals, waters, and soil.

Contact: Outdoor Recreation Planning - 612/296-4795
General Information - 612/296-6157
Minnesota Department of Natural Resources
3rd Floor, Centannial Office Building
658 Cedar Street
St. Paul, Minnesota 55155

Minnesota Department of Public Welfare

The Department of Public Welfare administers emergency and financial assistance and medical care, social services, and rehabilitative and residential services (including programs for work and training, Indochinese resettlement, chemical dependency, aging, and handicapped) and provides funding for community mental health centers.

Contact: 612/296-6117
Minnesota Department of Public Welfare
4th Floor, Centennial Office Building
658 Cedar Street
St. Paul, Minnesota 55155

Small Business Administration (SBA)

The SBA works with federal, state, and local agencies to provide financial and management training assistance to small businesses. Primarily the SBA guarantees low-interest bank loans to small businesses; a limited amount of direct federal funding is available. The SBA is also involved in neighborhood business revitalization projects, offering loans or guarantees to neighborhood development companies.

Contact: 612/725-2362
Small Business Administration
Plymouth Building
12 South 6th Street
Minneapolis, Minnesota 55402

Association of Minnesota Counties

The Association is a non-profit organization that functions primarily as an information clearinghouse for county governments throughout the state. Generally, they monitor federal and state programs that affect county governments in the areas of planning and development. They have a number of research and consulting programs in the areas of human services planning and financial management. They will also help package or develop assistance or consulting programs for some organizations.

Contact: Larry Granger - 612/698-4212
Morris Anderson - 612/698-4212
Association of Minnesota Counties
2305 Ford Parkway
St. Paul, Minnesota 55116

League of Minnesota Cities

Generally, the League provides information and assistance to city governments and represents local government interests before the legislature. They are presently working on a HUD

grant that offers technical assistance to cities in the area of community development, particularly in helping communities learn how to use locally funded redevelopment sources such as tax increment financing and industrial revenue bonds. The League is also affiliated with a number of associations that allows them to function as a referral service for almost any type of question or problem concerning community development.

Contact: 612/222-2861
League of Minnesota Cities
480 Cedar Street
Hanover Building
St. Paul, Minnesota 55101

Upper Great Lakes Regional Commission (UGLRC)

The UGLRC serves northern Minnesota, Wisconsin, and Michigan. They provide state and local governments of the three states with federal development grants for industry, energy resources, tourism, transportation, human resources, and governmental services. They can act very quickly on applications, and may provide up to 80% of the project cost, often in conjunction with other agencies. They will also help in formulating projects and writing grant applications.

Contact: Ben Boo - 218/723-4949
Upper Great Lakes Regional Commission
200 West Superior Street
601 First Federal Saving Building
Duluth, Minnesota 55802

Minnesota Association of Townships

The Association is a statewide, non-profit organization oriented toward educating township officials and interested citizens. They publish a township newspaper, sponsor short courses on township officer duties and laws, and lobby actively for township related activities. They also offer assistance to townships for comprehensive planning, zoning, legal questions, general financial management, and grants.

Contact: Dave Fricke - 612/497-2330
Minnesota Association of Townships
P.O. Box 246
St. Michael, Minnesota 55376

Toll-Free: 1-800-652-9747

The state departments listed below may be of interest to people involved with community development. All are accessible through the toll-free number listed above; simply ask the operator to connect you with the department you need.

Economic Development/Tourism Division
Energy Agency/Energy Information Center; Fuel Allocation
Governor's Office of Volunteer Services
Handicapped Council
Human Rights
Natural Resources
Revenue
State Planning Agency/Office of Local and Urban Affairs
Welfare/Aging Division

Minnesota Department of Economic Development (DED)

DED promotes the development and expansion of industry, business, and tourism within Minnesota, and encourages out-of-state and foreign business and industry to relocate or invest in the state. In terms of community development, they offer financial, informational, and training assistance to businesses and communities. They also support small business and industrial development through state contracts, grants and loans, and marketing assistance.

Contact: 612/296-5005
Minnesota Department of Economic Development
480 Cedar Street
101 Hanover Building
St. Paul, Minnesota 55101

Minnesota Department of Economic Security (DES)

DES is responsible for income and employment programs, and generally helps people train for and find employment. The State Economic Opportunity Office functions in a planning/advocacy/assistance role for low-income state residents in the areas of energy, housing, economic development, and human services. They administer grants, monitor programs, conduct studies for new projects, and plan projects for low-income people. The Statewide Comprehensive Employment and Training Act (CETA) Coordination Office designs programs and offers information about employment for groups with special employment training needs (such as youth, elderly, handicapped).

Contact: Mary Pat Cain - 612/296-1461
Minnesota Department of Economic Security
390 North Robert Street
St. Paul, Minnesota 55101

Minnesota Department of Education

The Department of Education administers financial aids for community education (including adult continuing and basic education); provides assistance and guidance to local school districts in financing and operating facilities; administers Title I projects sponsored by local school districts; and

makes grants for multi-county/multi-use public libraries etc.

Contact: 612/296-6104
Minnesota Department of Education
Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101

U.S. Economic Development Administration (EDA)

EDA offers federal financial assistance to economically distressed urban and rural communities for public works, business development financing, technical assistance, and planning. This is done primarily through loan guarantees, with some grants and direct funding.

Contact: Stan Pechaver - 612/725-7124
U.S. Economic Development Administration
316 North Robert Street
St. Paul, Minnesota 55101

Arrowhead Region: Jack Arnold - 218/727-6692
U.S. Economic Development Administration
Arrowhead Region
Federal Courts Building
Duluth, Minnesota 55802

Farmers Home Administration (FmHA)

FmHA offers financial resources to low-income rural economic and commercial development projects in areas with populations under 20,000 where they cannot obtain conventional financing. They work with Regional Development Commissions and other federal and state agencies to provide direct housing and farm loans, commercial development loans and grants to rural communities, and business loan guarantees.

Contact: Business and Industry: Robert Federer - 612/725-5842
Community Programs: Richard Reinarz - 612/725-5842
Allen Wanquist - 612/725-5842
Farmers Home Administration
252 Federal Building
U.S. Courthouse
316 North Robert Street
St. Paul, Minnesota 55101

U.S. Department of Housing and Urban Development (HUD)

HUD has three major community development programs. The Community Development Block Grant Program (CDBG) channels grants to communities for economic development, public

facilities, and low-income housing. The Urban Development Action Grant Program (UDAG) aids privately financed economic development in communities where private investment cannot cover the entire cost of a project. On a smaller scale, the Neighborhood Self-Help Program offers assistance grants for neighborhood based community development plans.

Contact: Shawn Huckleby - 612/725-4701
U.S. Department of Housing and Urban Development
6400 France Avenue South
Minneapolis, Minnesota 55435

Minnesota Department of Transportation (MnDOT)

Mn/DOT is responsible for developing statewide transportation plans and policy for all modes of transportation, and for coordinating federal, state, and local plans and programs. They also provide transportation research information, plans, and maps to the public.

Contact: Peter Fausch - 612/296-8532
Assistant Commissioner, Planning Department
(Secretary: 612/296-8527)
Minnesota Department of Transportation
Transportation Building
John Ireland Boulevard
St. Paul, Minnesota 55155

State Planning Agency/Office of Local and Urban Affairs (SPA/OLUA)

Through its Office of Local and Urban Affairs, technical and planning assistance is provided to local governments and Regional Development Commissions. Grants are also available for planning activities and for outdoor recreation facilities.

Contact: 612/296-2102 or
1-800-652-9747 Toll-Free
State Planning Agency
Office of Local and Urban Affairs
200 Capitol Square Building, 550 Cedar Street
St. Paul, Minnesota 55101

Management and Technical Assistance Center

The University of Minnesota Management and Technical Assistance Center is a resource offering business a wide range of information and counseling services. Included are assistance with feasibility studies, technological problem solving, new product introduction, market research studies, business plans, government loan packaging, individual management consulting, business recovery plans and special

studies. Initial assistance is provided without charge.

Contact: Jim Faricy, Director - 612/373-3281
Management and Technical Assistance Center
University of Minnesota
107 Armory, 15 Church Street S.E.
Minneapolis, Minnesota 55455

Minnesota Department of Health

The Department of Health provides funding and assistance in support of county and multi-county community health services and oversees standards for public water systems and occupational and environmental health.

Contact: 612/296-5221
Minnesota Department of Health
717 Delaware Street S.E.
Minneapolis, Minnesota 55440

Source:
Minnesota State Planning Agency
Center for Local and Urban Affairs
APRIL 1980

KEY: A = assistance/information
$ = funding available
* = see summary for clarification

	SERVICES	GENERAL PLANNING AND INVESTMENT								INDUS/ECON DEVELOPMENT				LOW AND MODERATE INCOME HOUSING							PUBLIC FACILITIES							
	AGENCIES	land use planning	comprehensive planning	environmental review	revenue bond info	tax increment financing	general planning assist.	energy needs		devel./redevelopment	non-metro economic devel.	small business assistance		mortgage assistance	non-metro mortgage assist.	Section 8 Rentals	rehabilitation	homeownership	special needs housing		transportation/roads	airports	utilities	health facilities	corrections facilities	schools	parks and open space	human services
REGIONAL	Metropolitan Council	A	A	A			A									A$	A	A$			A	A	A	A	A	A	A	A
	Regional Devel. Commissions (RDC)	A	A	A			A	A		A*	A*					A	A	A	A		A		A		A		A	A
STATE	MN Energy Agency	A*						A$		A$*							A$							A$*		A$*		
	MN Housing Finance Agency (MHFA)				A									A	A	A$*	A	A	A$									
	MN Rural Devel. Council										A																	A$
	Pollution Control Agency (PCA)			A																			A$					
	Dept. of Econ. Development (DED			A	A	A	A	A		A$	A$	A$									A	A$	A$				A	
	Dept. of Econ. Security (DES)							A$*		A$	A$																	A$
	Dept. of Education				A																					A$		A$
	Dept. of Health						A$																	A				A$
	Dept. of Natural Resources (DNR)	A	A	A			A																				A$	
	Dept. of Public Welfare						A														$*							A$
	Dept. of Transportation (Mn/DOT)	A																			A$	A$						
	State Planning Agency (SPA)	A$	A$	A		A	A$			A														A			A$	A
	Upper Gr. Lakes Reg. Comm. (UGLRC)				A	A		A$		A$	A$	A$									$*	$					$	A$*
FEDERAL	Econ. Development Admin. (EDA)						A	A		A$	A$	A																
	Farmers Home Administration (FmHA)		$							$	$	$			A$	A$	A$	A$	A$		$			$		$		
	HUD	A	A	A	A	A	A	A$		$	$			$	$	$	$	$	$				$				$	
	Small Business Admin. (SBA)							$*		$	$	A$																
QUASI-PUBLIC	Assoc. of MN Counties		A		A		A	A													A			A	A		A	A
	League of Minnesota Cities	A	A	A	A	A	A	A		A	A			A	A						A	A	A	A			A	
	MN Assoc. of Townships	A	A	A	A		A	A			A										A	A	A				A	A