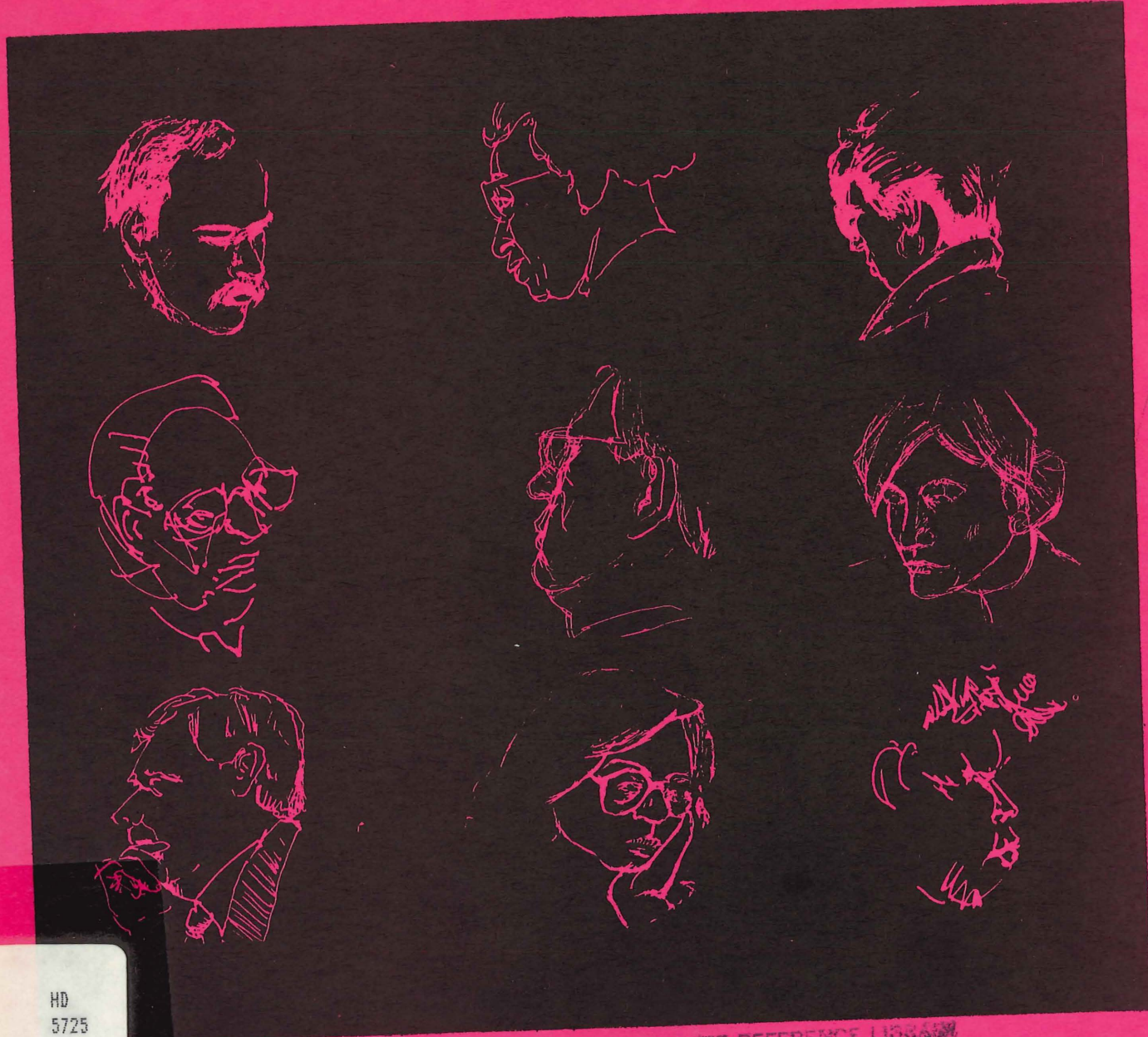


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Greater Minnesota Employment Outlook to 1993



September 1989

Prepared by:

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Table of Contents

	<u>Page</u>
List of Tables and Charts	3
Introduction	5
Overview of the Five Regions	7
Map of Minnesota Regions by County	8
Northeast Minnesota	11
Northwest Minnesota	27
Central Minnesota	43
Southwest Minnesota	59
Southeast Minnesota	75
Appendix:	
Methodology	93
Suggested Ways to Use Projections Data	98
Alphabetical Index of Occupations	101
For More Information	107

List of Tables and Charts

	<u>Page</u>
Figure 1: Percent Change in Employment by Region, 1986-1993.....	7
Figure 2: Employment in Greater Minnesota Regions, 1986-1993.....	9
Figure 3: Projected Employment Growth by Occupational Category and Region, 1986-1993.....	10
Figure 4: Employment Distribution by Industry Group, Northeast Minnesota, 1986 and 1993.....	14
Figure 5: Employment Projections by Industry, 1986-1993, Northeast Minnesota.....	15
Figure 6: Projected Job Openings by Occupational Category, Northeast Minnesota, 1986-1993.....	16
Figure 7: Employment Distribution by Occupational Category, Northeast Minnesota, 1986 and 1993.....	17
Figure 8: Occupations with Largest Projected Employment Growth, 1986-1993, Northeast Minnesota.....	18
Figure 9: Occupations with Largest Projected Employment Decline, 1986-1993, Northeast Minnesota.....	18
Figure 10: Employment Projections by Specific Occupation, 1986-1993, Northeast Minnesota.....	19
Figure 11: Employment Distribution by Industry Group, Northwest Minnesota, 1986 and 1993.....	30
Figure 12: Employment Projections by Industry, 1986-1993, Northwest Minnesota.....	31
Figure 13: Projected Job Openings by Occupational Category, Northwest Minnesota, 1986-1993.....	32
Figure 14: Employment Distribution by Occupational Category, Northwest Minnesota, 1986 and 1993.....	33
Figure 15: Occupations with Largest Projected Employment Growth, 1986-1993, Northwest Minnesota.....	34
Figure 16: Occupations with Largest Projected Employment Decline, 1986-1993, Northwest Minnesota.....	34
Figure 17: Employment Projections by Specific Occupation, 1986-1993, Northwest Minnesota.....	35
Figure 18: Employment Distribution by Industry Group, Central Minnesota, 1986 and 1993.....	46
Figure 19: Employment Projections by Industry, 1986-1993, Central Minnesota.....	47

Figure 20: Projected Job Openings by Occupational Category, Central Minnesota, 1986-1993.....	48
Figure 21: Employment Distribution by Occupational Category, Central Minnesota, 1986 and 1993.....	49
Figure 22: Occupations with Largest Projected Employment Growth, 1986-1993, Central Minnesota.....	50
Figure 23: Occupations with Largest Projected Employment Decline, 1986-1993, Central Minnesota.....	50
Figure 24: Employment Projections by Specific Occupation, 1986-1993, Central Minnesota.....	51
Figure 25: Employment Distribution by Industry Group, Southwest Minnesota, 1986 and 1993.....	62
Figure 26: Employment Projections by Industry, 1986-1993, Southwest Minnesota.....	63
Figure 27: Projected Job Openings by Occupational Category, Southwest Minnesota, 1986-1993.....	64
Figure 28: Employment Distribution by Occupational Category, Southwest Minnesota, 1986 and 1993.....	65
Figure 29: Occupations with Largest Projected Employment Growth, 1986-1993, Southwest Minnesota.....	66
Figure 30: Occupations with Largest Projected Employment Decline, 1986-1993, Southwest Minnesota.....	66
Figure 31: Employment Projections by Specific Occupation, 1986-1993, Southwest Minnesota.....	67
Figure 32: Employment Distribution by Industry Group, Southeast Minnesota, 1986 and 1993.....	78
Figure 33: Employment Projections by Industry, 1986-1993, Southeast Minnesota.....	79
Figure 34: Projected Job Openings by Occupational Category, Southeast Minnesota, 1986-1993.....	80
Figure 35: Employment Distribution by Occupational Category, Southeast Minnesota, 1986 and 1993.....	81
Figure 36: Occupations with Largest Projected Employment Growth, 1986-1993, Southeast Minnesota.....	82
Figure 37: Occupations with Largest Projected Employment Decline, 1986-1993, Southeast Minnesota.....	82
Figure 38: Employment Projections by Specific Occupation, 1986-1993, Southeast Minnesota.....	83

Introduction

Purpose:

Greater Minnesota Employment Outlook to 1993 is one of three publications which update the 1990 projections to reflect recent changes in the economy and in occupational staffing. The other publications cover Minnesota (statewide) and the seven-county Twin Cities Area. This publication gives growth prospects for 17 industries and between 275 and 310 occupations in each of five outstate regions. Besides projecting job openings from increased employment, it also provides the number of job openings expected from persons leaving the labor force.

The purpose of this report is to provide updated industry and occupational information that can be used in decision-making. Employment projections can be used by manpower and educational councils to formulate overall manpower strategies at the state and local levels, by planners to direct manpower and vocational education and training programs, and by employment and vocational education counselors to identify current and projected occupational employment needs. Individuals can use these projections in career planning, and private industry can use them to assess the future prospects for various industries and occupations.

Organization:

This booklet is organized by region. Each regional section addresses pertinent industry and occupational developments in the region, and has tables and graphics of industry and occupational employment projections.

An overview in the beginning discusses broad industry and occupational developments in Greater Minnesota, and presents tables and

graphics depicting similarities and differences among the outstate regions. It also contains a state map showing the counties in each of the regions.

The Appendix contains a description of the methodologies used, suggested ways of using projections information, an alphabetical index of occupations, and sources of additional information, including details on how to obtain employment projections data on diskette.

Limitations:

Certain limitations exist of which users of this information should be aware so that the data is not misused. Major limitations include:

1. Data in this publication estimates only the demand for occupations. It is most useful when used with other types of data, such as occupational supply, skill and educational requirements, wages, etc.
2. Employment refers to the number of jobs, (including both full- and part-time), not the number of employed persons. Since some people work at more than one job, fewer persons will be employed than the number of jobs. Likewise, employment is based on location of the job, not residence of the employee.
3. Past relationships between key industries (65 industry groupings most appropriate for Minnesota's economy) and related explanatory variables (such as United States employment for that industry or Minnesota employment in a related industry) were crucial factors used to project key industry employment. This assumes past relationships will continue into the future.

4. Individual regression models were used only to project statewide key industry employment. These employment projections were then allotted out, based on past employment trends, to the six regions and to more detailed industries within these regions. This again assumes past trends will continue into the future. Therefore, we are more confident in the projections for the broad industry and occupational groups, and less so as they become more detailed.
5. The labor force parameters (projected population, labor force participation rates, and unemployment rates) used to project total employment were statewide, not region-specific.
6. Relocation (which cannot be reliably predicted) of a large or dominant corporation into or out of the area could greatly alter employment levels within an industry and invalidate the projections for that industry.
7. Most of the staffing patterns used to develop the occupational projections were statewide patterns rather than region-specific. This assumption that industries have the same occupational distribution in all areas in the state is not always true.
8. Openings due to labor force separations include workers who retire, die, or leave the labor force for other reasons, such as disability or family responsibilities. Excluded are openings that are the result of job turnover (workers changing occupations or geographic location). Therefore, in most cases, the number of job openings is understated.
9. Rates used to calculate the labor force separations were not region-specific.

Despite these limitations, projections in this report represent an extensive and valuable data base for

those interested in future employment directions. They should be used as a planning tool rather than as an end in themselves. They can be useful for identifying areas of growth or decline as well as magnitude of change over the projection period. They are not intended as precise point estimates of employment.

Finally, numbers are rounded, and "all other..." residual occupations that weren't detailed further and occupations which encompass less than 50 persons after rounding have been left out of the data tables. Due to the way we estimated regional employment, sums of the six regions' employment in specific industries equal the state industry totals (except for rounding); the sum of the regions' employment in a specific occupation may not add to the state total for that occupation.

Contributors:

This publication was a joint effort of the Research and Statistics Office and others outside the office. Sue Borgfelt completed the industry employment projections, compiled this report, and is available for interpretation of this data. Don Hilber had overall responsibility for developing industry projections methods and releasing this report. Linda Carlstedt developed staffing patterns for all occupations and derived the occupational employment figures. Bruce Steuernagel provided guidance in meeting user needs. Barb Gorski prepared the graphics and did layout work. Dao Hoffman also did layout. Hugh Heimdahl designed the cover and illustrations, and guided the printing. Ron Daws edited. Many others, both within and outside of this office, deserve thanks for reviewing the preliminary employment projections and suggesting changes.

Overview of the Five Regions

Between 1986 and 1993, approximately 59,300 new jobs are expected in Greater Minnesota, an increase of seven percent. While this is slower than the statewide rate of 11 percent, there is a wide range of growth rates among the Greater Minnesota regions. (See Figures 1 and 2.)

The Central region is expected to grow more rapidly than the state average due to expansion of the service and retail trade industries. Southwest Minnesota is projected to experience the slowest job growth. That is because the region is highly dependent on agriculture, which is projected to decline substantially, and because of the reduced retail business in

small rural communities.

The accompanying map defines the regions in Minnesota. There is great diversity of industry mix and growth among the five Greater Minnesota regions. For example, in terms of industry mix, the Southeast region benefits from a large, rapidly-growing health services industry. In terms of industry growth, retail trade employment is growing rapidly in Central Minnesota, while in Southwest Minnesota it is projected to grow slower than average. As a result of these differences, projected growth for specific occupations varies from area to area.

Nevertheless, similarities stand

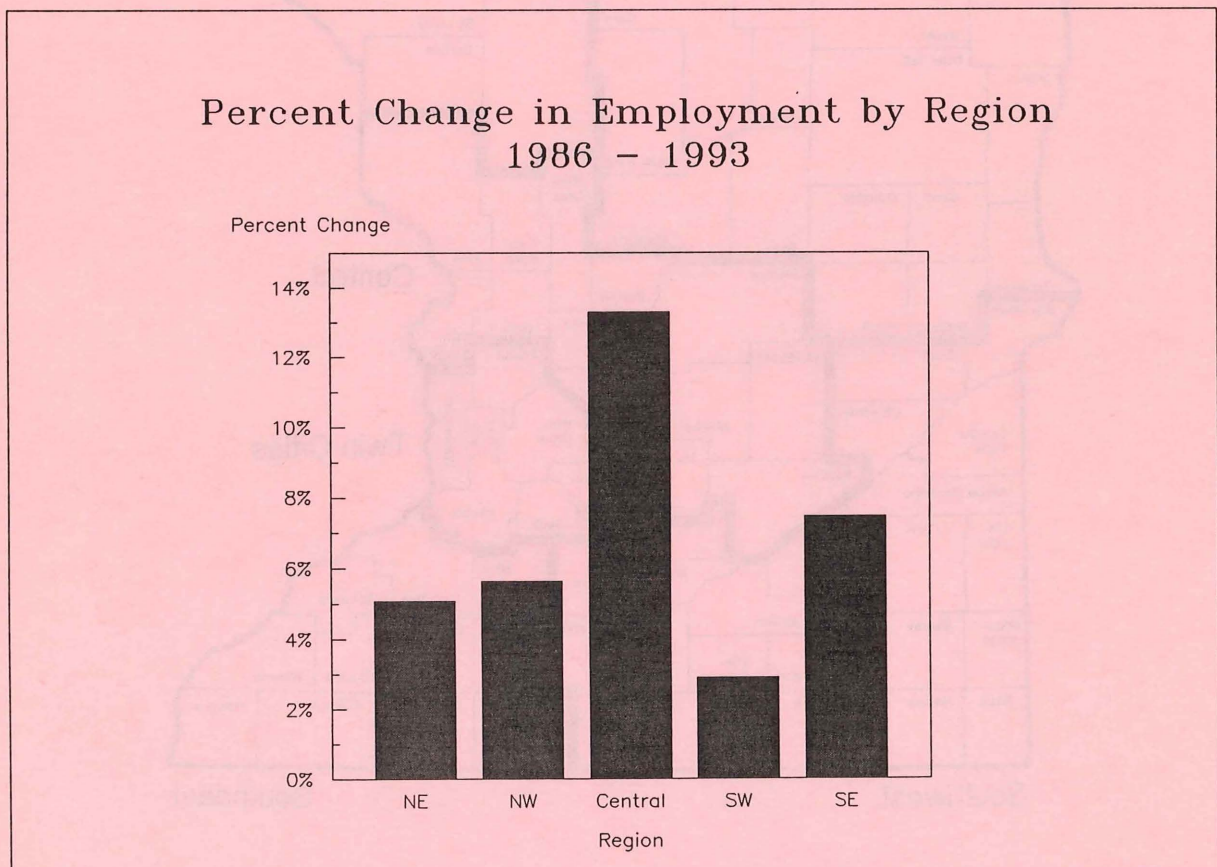
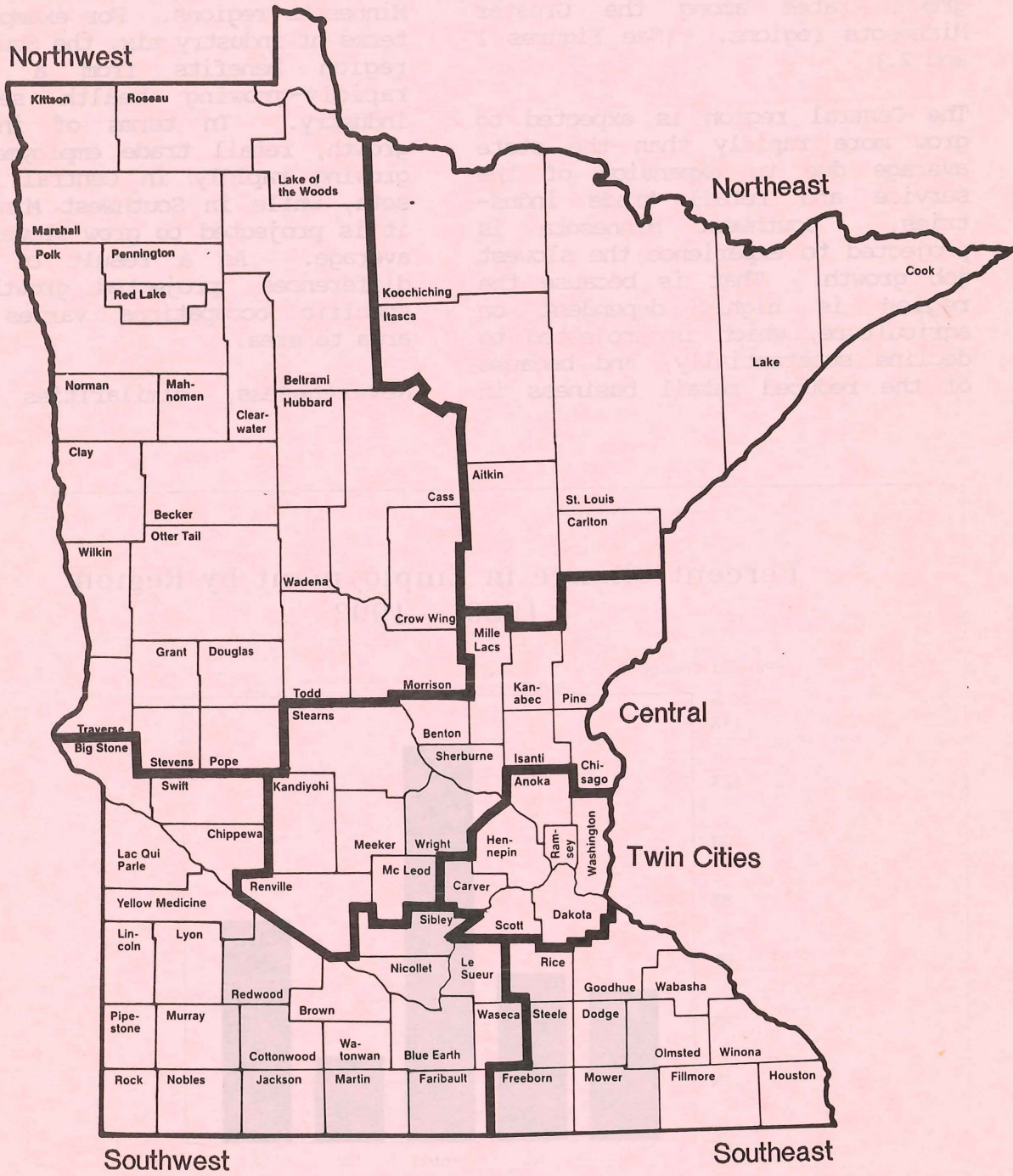


Figure 1

Minnesota Regions



Employment in Greater Minnesota* Regions 1986 - 1993

Region	1986 Estimated Employment	1993 Projected Employment	Numeric Change**	Percent Change**	Labor Force Separations	Total Openings*** 1986-1993**
Northeast	120,280	126,400	6,130	5%	26,840	32,930
Northwest	177,350	187,360	10,010	6	39,960	49,940
Central	180,680	204,710	24,040	13	41,900	65,890
Southwest	171,810	176,800	4,990	3	37,560	42,550
Southeast	189,220	203,350	14,130	7	42,300	56,340
Greater Minnesota	839,330	898,620	59,290	7	188,550	247,650

Figure 2

*Greater Minnesota is the state except the seven-county Twin Cities area.

**Calculated using unrounded numbers.

***Total Openings includes openings due to growth or decline (numeric change between 1993 and 1986 employment), plus openings from labor force separations (workers who retire, die, or leave the labor force for other reasons, such as disability or family responsibilities). They do not include openings that are the result of workers changing occupations or moving.

NOTE: Some of these figures do not exactly match the industry totals for the regions. This is because these numbers are the totals of the occupational employment derived from the industry employment. Assigning the employment to specific occupations requires more rounding and thus produces slightly different totals.

out:

In every region, services is the largest of the seven industry groups, and is the industry group projected to create the most new jobs.

In all regions, the managerial & administrative, professional, paraprofessional & technical, sales & related, and service occupational categories are forecasted to grow faster than the region's average. Clerical and administrative support is expected to increase more slowly than average, and agriculture, forestry, and fishing is projected to lose jobs. (See Figure 3.)

In every region, jobs with high, medium, and low educational and

skill requirements are all found in the list of the 20 occupations expected to grow most.

In all regions, more job openings are expected from labor force separations (workers who retire, die, or leave the labor force for other reasons, but not those who change jobs) than from employment growth.

The number of agricultural jobs in the state is projected to decline substantially. Major reasons are the consolidation of small farms, technological change, and land development. This particularly affects four regions -- Northwest, Southwest, Southeast, and Central.

Greater Minnesota also faces increasing retail trade market centralization. According to a 1989

Projected Employment Growth
by Occupational Category and Region
1986 - 1993

Occupational Category	Northeast		Northwest		Central		Southwest		Southeast	
	% Chg	Numeric Change	% Chg	Numeric Change	% Chg	Numeric Change	% Chg	Numeric Change	% Chg	Numeric Change
Managerial and Administrative	7%	510	10%	1,010	17%	1,930	7%	730	11%	1,270
Professional, Paraprofessional, & Technical	10	2,360	10	3,240	19	5,610	10	2,660	14	5,430
Sales and Related	6	830	11	1,860	20	3,930	6	930	13	2,410
Clerical and Administrative Support	1	250	4	910	12	2,870	2	490	6	1,540
Service Occupations	7	1,530	11	3,420	20	5,780	5	1,350	12	3,690
Agriculture, Forestry, and Fishing	-4	-90	-14	-3,530	-11	-2,130	-13	-3,470	-16	-2,520
Precision Production and Repair	2	330	8	1,420	13	2,510	4	710	6	1,040
Operator, Fabricator, and Laborer	3	410	8	1,690	13	3,530	6	1,600	4	1,280
Total All Occupations	5	6,130	6	10,010	13	24,040	3	4,990	7	14,130

Figure 3

report by the Minnesota State Planning Agency, retail sales are becoming more centralized in the state's largest cities. Regions with a high proportion of retail jobs in small towns are most adversely affected.

A distinction needs to be made between services industries and service occupations. Services industries include a wide range of service-oriented industries such as health services, educational services, social services, business services, and others. (They have been summarized in the upcoming industry tables.) Services industries employ workers in the service occupational category, and in the other occupational categories as well: managerial & administrative, professional, paraprofessional & technical, sales & related, clerical & administrative support, agriculture, forestry & fishing, precision production & repair, and operators, fabricators & laborers. Service occupations are likewise found in industries other than services, such

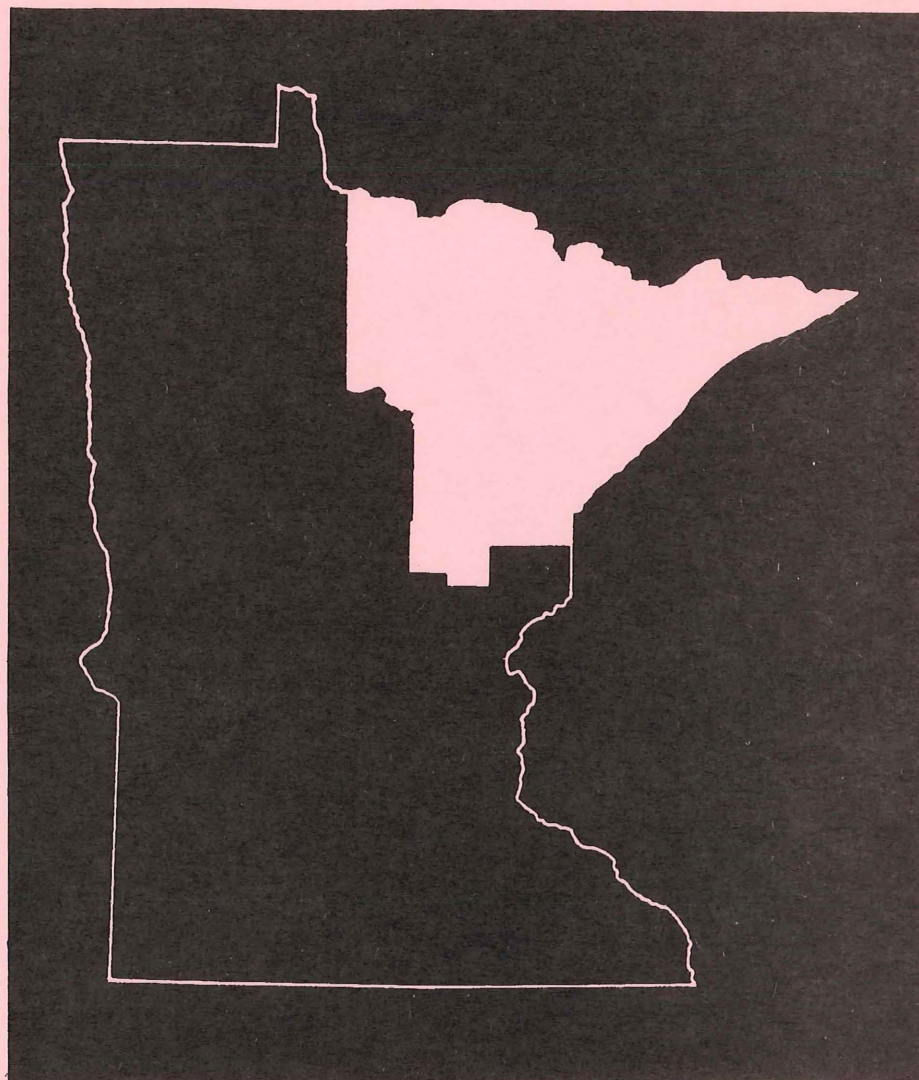
as trade (eating and drinking places) and government (police departments).

One factor escalating the number of new managerial jobs is that in the rapidly growing services industry, firm size is relatively small, so a higher-than-average proportion of employees work in management positions. Another reason for the fast growth is that business operations are becoming increasingly complex.

Technology and automation are partially responsible for both the fast growth of some occupations, such as computer systems analysts, and for the decline of others, such as typists & word processors and industrial truck & tractor operators. Demographics, cost-containment, competitive needs, import substitution, and personal and business preferences also affect occupational growth.

The following sections provide details on industry and occupational projections by region.

Northeast Minnesota



Northeast Minnesota

This region contains seven counties in the northeastern part of the state, those counties that are in Economic Development Region 3. This area has historically depended on iron mining, logging, and tourism. In Duluth, the manufacturing and transportation industries have been important. In 1986, six percent of all jobs in the state were located in Northeast Minnesota. The services industry presently accounts for nearly one-third of the jobs in this area. Trade is the next largest industry, followed by government, manufacturing, and the self-employed. (See Figure 4.)

Total employment in Northeast Minnesota is projected to increase from 120,280 in 1986 to 126,400 in 1993, a five percent gain. This is slower than the statewide growth rate and also the growth rate for Greater Minnesota (11% and 7%, respectively). Services and manufacturing are expected to grow fastest, with services adding 3,550 workers over the projections period. (See Figure 5.) Job losses are anticipated in mining, transportation, wholesale trade, and agriculture, forestry, and fishing.

Agriculture, forestry, and fishing employment is projected to decline significantly, mainly because of declines in agriculture. The loss in agricultural employment will not be nearly as large as in other areas because it makes up a much smaller part of the Northeast's economy than of other outstate regions'.

The Northeast region is much more dependent on mining than the other regions in the state. This is particularly true of the iron ore mining industry because of the high income generated by the industry. Seven out of ten iron ore mining jobs in the nation are located on

the Iron Range of Northeast Minnesota. Iron ore mining jobs are expected to decline between 1986 and 1993, although not as sharply as in the past. Reasons suggesting further decline are technological change allowing greater output from fewer workers and an expected decline in the demand for domestic primary metals. The projected changes in other types of mining employment in this area between 1986 and 1993 are negligible.

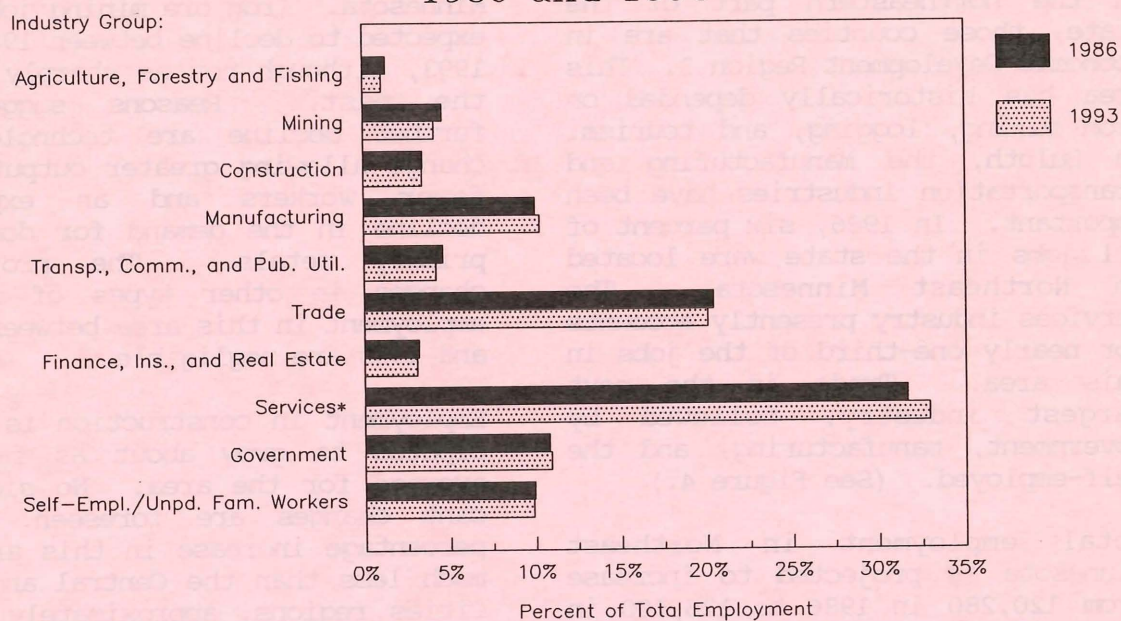
Employment in construction is anticipated to grow about as fast as average for the area. No significant changes are foreseen. The percentage increase in this area is much less than the Central and Twin Cities regions, approximately equal to the Northwest region, and greater than in the Southwest and Southeast regions.

Manufacturing employment is projected to grow faster than average and add significant numbers of jobs, both in the durable goods and non-durable goods sectors. Electric and electronic equipment is expected to grow much faster than average and add a significant number of new jobs. Printing and publishing, paper mills (except building), and lumber and wood products are other industries projected to add significant numbers of new workers.

The number of jobs in transportation, communication, and public utilities is expected to drop. Railroad jobs are projected to decline substantially. The number of water transportation workers is also expected to dwindle. Local and interurban passenger transit employment is anticipated to increase.

Trade, overall, is projected to add jobs more slowly than average. Wholesale trade employment is

Employment Distribution by Industry Group Northeast Minnesota 1986 and 1993



* Services includes state and local government education and hospital employment

Figure 4

expected to drop by six percent, with the most workers being lost in machinery, equipment, and supplies. Retail trade, though only projected to grow by five percent, is still expected to add 1,000 more workers, due to the sheer size of the industry. Eating and drinking places and miscellaneous shopping goods stores (which includes gift shops) are anticipated to add the most jobs in this group.

Finance, insurance, and real estate is expected to barely grow, by two percent. The only significant change projected is a loss of jobs in commercial and stock savings banks. Employment in the banking industry is forecasted to stagnate all over the United States because of loan losses, automation, and heavy competition from other financial service industries.

Services is anticipated to grow the fastest and add the most new jobs of

all the industry groups. Educational services, social services, health services (except hospitals), and business services will add significant numbers of employment to this already largest industry group. Affected by efforts to control health service costs, the number of workers in hospitals, including state and local government hospitals, is projected to remain about the same in 1993 as in 1986.

Government is forecasted to grow about average, yet will add the third-highest number of new jobs because of its relatively large size. Local government, excluding non-library educational services and hospitals, is expected to gain the most workers.

Nonagricultural self-employed and unpaid family workers are projected to increase about average.

Nearly two-thirds of the region's

Employment Projections by Industry, 1986 - 1993 Northeast Minnesota

Industry	1986 Estimated Employment	1993 Projected Employment	Numeric Change*	Percent Change*	Percent of Projected 1993 State Industry Employment
TOTAL, ALL INDUSTRIES	120,280	126,400	6,120	5%	5%
Agriculture, Forestry, and Fishing, including Self-Employed/Unpaid Family Workers	1,610	1,410	-200	-13	2
Mining	5,570	5,240	-340	-6	75
Construction	4,140	4,310	170	4	5
Manufacturing, Total	12,030	13,010	980	8	3
Durable Goods Manufacturing	5,740	6,180	440	8	3
Nondurable Goods Manufacturing	6,290	6,820	540	9	4
Transportation, Communication, and Public Utilities	5,540	5,300	-240	-4	5
Transportation	2,690	2,460	-220	-8	4
Communication and Public Utilities	2,850	2,840	-10	0	8
Trade, Total	24,550	25,340	790	3	5
Wholesale Trade	3,580	3,370	-210	-6	3
Retail Trade	20,970	21,970	1,000	5	5
Finance, Insurance and Real Estate	3,830	3,900	80	2	3
Services, Total	38,080	41,620	3,550	9	6
Health Services, including State and Local Government Hospitals	11,870	12,720	850	7	7
Educational Services, including Non-library State and Local Government Educational Services	11,600	12,600	1,000	9	8
Other Services, including Private Household Workers	14,610	16,310	1,700	12	5
Government, Total	12,980	13,810	840	6	9
Federal Government, including Postal Service	2,090	2,240	150	7	6
State Government, except Non- library Educational Services and Hospitals	1,680	1,770	90	5	6
Local Government, except Non- library Educational Services and Hospitals	9,200	9,800	600	7	11
Self-Employed/Unpaid Family Workers - Nonagricultural	11,950	12,450	500	4	7

*Calculated using unrounded numbers

Figure 5

Projected Job Openings by Occupational Category Northeast Minnesota 1986 - 1993

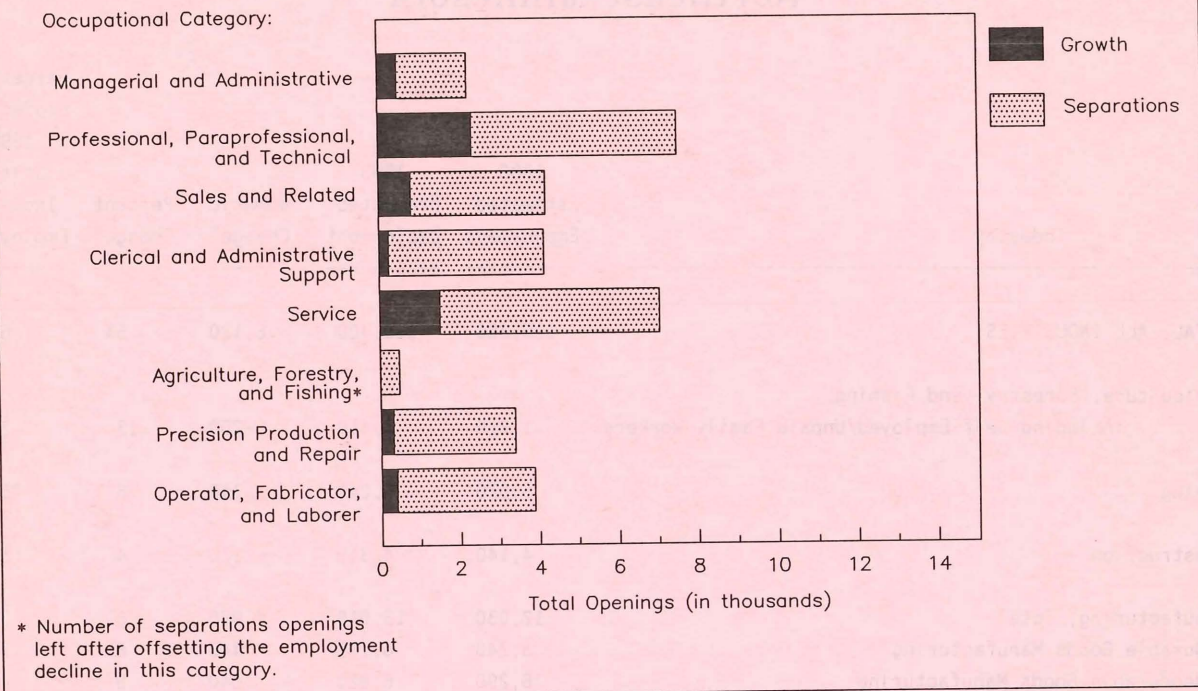


Figure 6

employment growth is expected to occur in the professional, paraprofessional, & technical and service occupational categories. These two categories will also provide the most total job openings. (See Figure 6.) These, along with the sales & related and managerial & administrative categories are projected to grow faster than average and to employ larger shares of workers in 1993 than 1986. (See Figures 3, 7 and 10.)

Retail salespersons is the occupation projected to add the most workers; farmers is projected to decline most. (See Figures 8 and 9.) Reflecting the projected industry growth, teaching- and nursing-related occupations will be in high demand in the upcoming years. Divergent transportation needs are evidenced by truck drivers increasing while mates and able seamen and railroad workers decline.

The managerial and administrative occupational category is projected to grow slightly faster than average. Education administrators are projected to grow fastest and account for 30 of the new jobs. The most growth is anticipated for general managers and top executives.

Professional, paraprofessional and technical occupations is projected to be the fastest-growing occupational category. Not surprisingly, most of the growth in this category is expected to occur among teachers & instructors and health practitioners & technicians. The computer & related and social scientists/recreation/religion occupational subcategories are forecasted to grow fastest.

Employment growth in the sales category will be about average, with retail salespersons and cashiers growing the most.

Employment Distribution by Occupational Category Northeast Minnesota 1986 and 1993

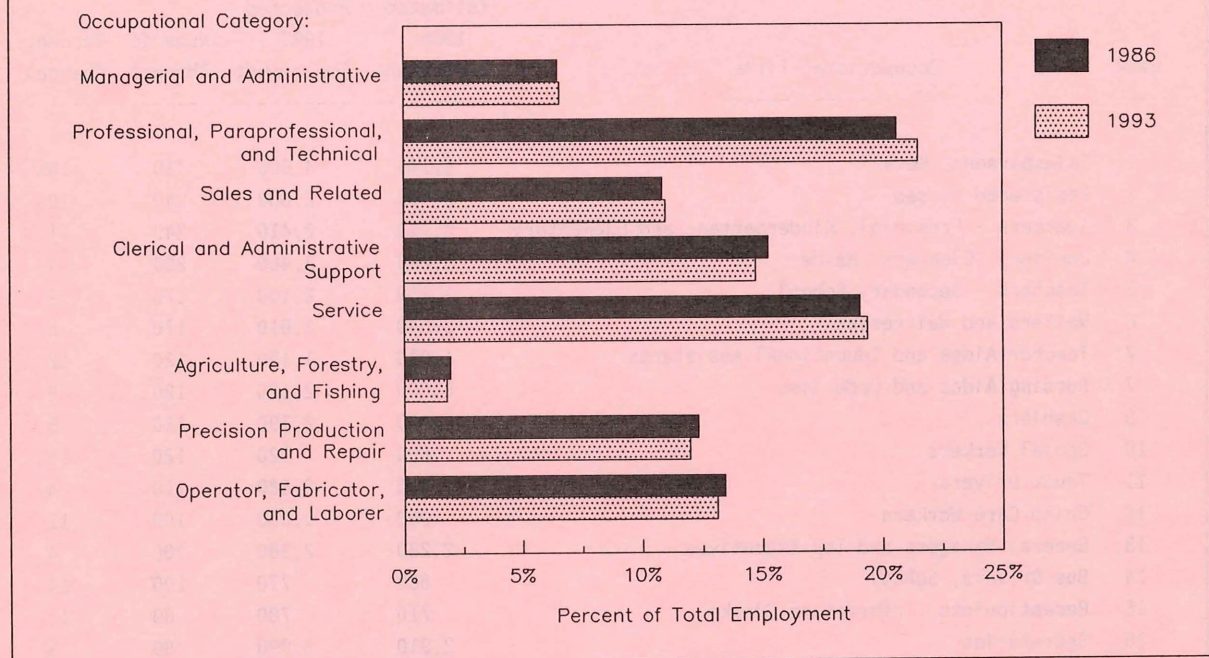


Figure 7

The clerical and administrative support category is projected to grow by only one percent, with typists and word processors expected to be the second-biggest job losers. Nevertheless, due to the large numbers of receptionists, secretaries, and general office clerks and/or growth in industries employing them, these three are among the twenty occupations projected to create the most jobs.

In the service occupational category, the most growth is expected to be found in the food & beverage and health service subcategories.

In the declining agriculture, forestry, and fishing category, farmers and farm workers are expected to lose jobs. Forestry and logging occupations are projected to grow fast and add 50 positions.

The number of precision production

and repair workers is projected to increase sluggishly, especially in the mechanics subcategory. Carpenters will increase the most.

The operators, fabricators, and laborers category will grow slowly. Truck and school bus drivers are anticipated to add approximately 100 jobs each. Precision assemblers are projected to increase by 38 percent, although that only means 50 new jobs. This category also encompasses four of the ten occupations projected to lose the most workers.

In the Northeast region, many more job openings are expected to arise from labor force separations than from employment growth. In total, 32,930 job openings are anticipated between 1986 and 1993, 19 percent from growth and 81 percent from separations.

Occupations with Largest Projected Employment Growth 1986 - 1993 Northeast Minnesota

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Salespersons, Retail	4,170	4,600	430	10%
2	Registered Nurses	2,360	2,600	240	10
3	Teachers - Preschool, Kindergarten, and Elementary	2,170	2,410	240	11
4	Janitors, Cleaners, Maids	3,260	3,460	200	6
5	Teachers - Secondary School	1,930	2,100	170	9
6	Waiters and Waitresses	2,640	2,810	170	6
7	Teacher Aides and Educational Assistants	1,030	1,150	120	12
7	Nursing Aides and Orderlies	2,000	2,120	120	6
9	Cashiers	2,670	2,790	120	5
10	Social Workers	800	920	120	15
11	Truck Drivers	2,470	2,580	110	4
12	Child Care Workers	930	1,030	100	11
13	General Managers and Top Executives	2,280	2,380	100	4
14	Bus Drivers, School	680	770	100	14
15	Receptionists, Information Clerks	710	780	80	11
16	Secretaries	2,910	2,990	80	3
17	Food Preparation Workers	1,310	1,390	70	6
18	Licensed Practical Nurses	1,010	1,080	70	7
19	General Office Clerks	2,170	2,240	70	3
20	Teachers - Vocational Education	370	430	70	18

Figure 8

Occupations with Largest Projected Employment Decline 1986 - 1993 Northeast Minnesota

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Farmers	770	660	-110	-14%
2	Typists and Word Processors	1,020	920	-100	-10
3	Farm Workers	390	310	-80	-21
4	Tellers	530	480	-50	-9
4	Industrial Truck and Tractor Operators	320	270	-50	-15
6	Data Entry Keyers, Except Composing	300	260	-40	-12
7	Mates and Able Seamen	110	70	-30	-30
8	Welders and Cutters	640	610	-30	-4
9	Railroad Brake, Signal, Switch Operators	120	100	-30	-21
10	Stock Clerks: Stockroom Or Warehouse	540	520	-20	-4

*Calculated using unrounded numbers

Figure 9

Employment Projections by Specific Occupation 1986 - 1993 Northeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
TOTAL, ALL OCCUPATIONS	120,280	126,400	5%	6,130	26,840	32,930
MANAGERIAL AND ADMINISTRATIVE OCC.	7,770	8,280	7	510	1,750	2,260
Financial Managers	670	710	5	40	110	150
Personnel, Training, Labor Rel.Mgr	150	150	1	0	20	20
Purchasing Managers	260	260	0	0	30	30
Marketing, Adv., Public Rel.Mgrs	370	400	7	30	70	100
Postmasters, Mail Superintendent	90	90	8	10	50	60
Education Administrators	330	360	10	30	60	100
Property, Real Estate Management	70	80	7	10	40	40
Food Service & Lodging Managers	530	570	8	40	130	180
Public Admin., Leg., Gen. Admin.	190	200	7	10	60	80
General Managers and Top Exec.	2,280	2,380	4	100	560	660
PROFESSIONAL, PARAPROFESS.,TECH.	24,790	27,150	10	2,360	5,140	7,500
MANAGEMENT SUPPORT OCCUPATIONS	2,950	3,100	5	160	590	740
Financial Specialists	1,030	1,090	5	60	190	250
Loan Officers and Counselors	70	70	-3	0	10	10
Accountants and Auditors	930	990	6	50	180	230
Purchasing Agents and Buyers	330	330	1	0	60	60
Wholesale, Retail Buyers, Ex.Farm	220	210	-1	0	40	40
Purchasing Agent Ex.Who/Ret/Farm	120	120	3	0	20	30
Personnel Specialists & Related	350	350	1	0	60	60
Employment Interviewers	50	50	17	10	10	10
Personnel, Train.,Labor Rel. Spec	300	300	-1	0	50	40
Other Management Support Occ.	1,240	1,330	8	100	290	380
Cost Estimators	130	140	6	10	10	20
Management Analysts	60	60	7	0	20	30
Construction, Building Inspector	80	80	3	0	40	40
Compliance & Enforce. Inspectors	150	160	6	10	40	40
Tax Examiner,Collector,Rev.Agent	50	60	11	10	10	20
ENGINEERS, ARCHITECTS, SURVEYORS	1,860	2,010	8	150	320	470
Engineers	750	830	11	80	130	200
Metallurgists and Rel. Engineers	70	80	7	10	10	10
Civil Engineers, Incl. Traffic	170	180	5	10	40	40
Electrical & Electronic Engineer	150	190	24	40	10	50
Industrial Engineers, Exc. Safety	70	80	8	10	10	20
Mechanical Engineers	140	160	11	20	20	40
Architects	100	100	1	0	10	10
Architects, Exc. Land. & Marine	90	90	1	0	10	10
Surveying and Mapping Scientists	130	130	1	0	30	30
Engineering Technicians	880	940	8	70	150	220
Electrical & Electronic Techns.	220	250	13	30	10	40
Drafters	290	290	0	0	60	60
NATURAL SCIENTISTS	660	700	7	40	120	160
Physical Scientists	150	150	2	0	30	30
Chemists, Except Biochemists	50	50	2	0	10	10
Geologist, Geophysicist, Oceanog	80	80	3	0	10	10
Life Scientists	270	300	8	20	40	60
Forester, Conservation Scientist	100	110	6	10	10	20
Agricultural and Food Scientists	50	50	7	0	10	10
Biological Scientists	90	100	12	10	10	20
Physical & Life Sci. Technicians	240	260	8	20	50	70
COMPUTER AND MATHEMATICAL OCC.	500	570	15	70	70	150
Computer and Related Occupations	460	540	16	80	70	150
Computer Systems Analysts, EDP	180	220	17	30	10	40
Computer Programmers & Aides	280	320	15	40	60	110

Figure 10

Employment Projections by Specific Occupation 1986 - 1993 Northeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
SOCIAL SCIENTISTS, RECR., RELIGION						
Social Scientists	1,880	2,130	13	250	520	780
Urban and Regional Planners	210	240	13	30	30	60
Psychologists	60	60	11	10	0	10
Social, Recreation, Religion Occ	120	140	17	20	20	40
Social Service Technicians	1,670	1,900	14	230	490	720
Social Workers	230	270	20	50	40	80
Recreation Workers	800	920	15	120	180	300
Clergy	340	380	12	40	110	150
Directors, Religious Activ./Educ.	200	220	6	10	110	120
Directors, Religious Activ./Educ.	100	110	11	10	50	60
LAW AND RELATED OCCUPATIONS						
Lawyers and Judges	890	960	8	80	260	340
Lawyers	730	780	7	50	230	290
Legal Assistants and Technicians	690	740	7	50	220	270
Paralegal Personnel	160	190	14	20	30	50
Paralegal Personnel	50	60	17	10	10	10
TEACHERS, LIBRARIANS, COUNSELORS						
College and University Faculty	7,160	7,850	10	690	1,490	2,190
Teachers and Instructors	520	560	6	30	110	150
Teachers, Preschool, Kinder, Elem.	6,220	6,840	10	620	1,280	1,910
Teachers, Secondary School	2,170	2,410	11	240	480	710
Teachers, Vocational Education	1,930	2,100	9	170	290	460
Instructors, Nonvocational Educ.	370	430	18	70	110	180
Instructors, Nonvocational Educ.	300	330	10	30	90	120
Librarians, Archivists, Curators	420	450	8	40	100	130
Librarians, Professional	200	210	8	20	60	70
Technical Assistants, Library	80	80	5	0	20	30
Vocational & Educ. Counselors	120	140	12	20	10	30
HEALTH PRACTITIONERS, TECHNICIANS						
Health Treating Practitioners	6,570	7,280	11	710	1,290	2,000
Physicians and Surgeons	930	1,030	10	90	360	460
Dentists	540	590	11	60	200	260
Optometrists	290	310	10	30	120	150
Veterinarians, Vet. Inspectors	50	50	11	10	20	30
Veterinarians, Vet. Inspectors	60	60	5	0	10	10
Therapists	410	470	15	60	50	110
Respiratory Therapists	50	50	8	0	0	10
Occupational Therapists	60	80	19	10	10	20
Physical Therapists	110	140	27	30	10	40
Speech Pathologists, Audiologists	80	90	11	10	10	20
Recreation Therapists	60	60	7	0	10	10
Health Care Maintenance, Treating	3,990	4,380	10	390	630	1,020
Registered Nurses	2,360	2,600	10	240	370	620
Licensed Practical Nurses	1,010	1,080	7	70	130	200
Emergency Medical Technicians	170	190	14	20	20	40
Physician Assistants	70	80	13	10	10	10
Opticians, Dispensing & Measur.	80	90	18	10	20	40
Pharmacists	230	260	11	30	60	90
Dietitians and Nutritionists	60	60	5	0	10	10
Med. Technicians & Technologists	890	1,000	12	100	170	270
Dental Hygienists	160	190	20	30	10	40
Med. & Clinic Lab Tech. & Technol.	400	410	5	20	80	110
Medical Records Techn. & Technol.	80	100	25	20	30	50
Radiologic Technol. & Technician	160	190	17	30	40	60
Surgical Technicians	70	80	9	10	10	10
Other Health Prof., Para, Tech	350	410	19	70	80	140
WRITER, ARTIST, ENTER., ATHLETE						
Writers, Editors, Incl Technical	1,320	1,420	8	100	270	360
Public Relations Specialists	220	240	12	30	50	80
Radio & TV Accounser & Newscast.	100	110	9	10	20	30
Reporters and Correspondents	130	130	4	10	30	40
Photographers	100	110	12	10	30	40
Photographers	70	70	3	0	10	10

Figure 10 (cont.)

Employment Projections by Specific Occupation
1986 - 1993
Northeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Camera Operators, TV & Movies	50	50	7	0	10	10
Broadcast Technicians	50	50	2	0	10	10
Designers	210	230	9	20	50	70
Artists and Related Workers	200	220	6	10	30	40
Musicians	150	160	6	10	40	40
OTHER PROF., PARAPROF., TECHN.	1,010	1,120	10	110	220	320
SALES AND RELATED OCCUPATIONS	13,070	13,910	6	830	3,380	4,200
SALES OCCUPATIONS, SERVICES	1,080	1,170	8	90	360	440
Insurance Sales Workers	440	470	7	30	140	170
Sales Agents, Real Estate	370	400	8	30	140	170
Securities, Financial Serv. Sales	90	100	16	10	20	40
Travel Agents	120	120	7	10	40	40
SALES OCC., RETAIL AND RELATED	8,180	8,770	7	590	2,210	2,790
Salespersons, Retail	4,170	4,600	10	430	1,350	1,780
Counter and Rental Clerks	130	130	-2	0	40	40
Stock Clerks, Sales Floor	1,210	1,260	4	40	370	410
Cashiers	2,670	2,790	5	120	450	570
OTHER SALES & RELATED OCC.***	3,820	3,970	4	150	810	970
CLERICAL & ADMIN. SUPPORT OCC.	18,360	18,610	1	250	3,890	4,150
FIRST LINE SUPERVISORS, CLERICAL	890	920	4	30	170	200
INDUSTRY SPECIFIC SUPPORT OCC.	3,140	3,270	4	130	550	670
Banking, Security, Finance, Credit	1,040	980	-6	-60	120	60
Tellers	530	480	-9	-50	40	-10
New Accounts Clerks	110	100	-5	-10	20	10
Loan and Credit Clerks	150	150	-4	-10	20	10
Adjustment Clerks	150	160	1	0	30	30
Records Processing Occ. Exc Finan	2,110	2,290	9	190	430	610
Insurance Policy Process. Clerks	70	60	-3	0	10	10
Welfare Eligibility Workers	220	240	8	20	20	40
Bill and Account Collectors	100	100	8	10	20	30
Court Clerks	80	90	13	10	10	20
Municipal Clerks	100	110	6	10	10	20
Hotel Desk Clerks	180	180	3	10	50	60
Library Assistants & Bookmobile	160	170	7	10	30	40
Teacher Aides & Educ. Assistants	1,030	1,150	12	120	230	350
SECRETARIES	2,910	2,990	3	80	620	690
GENERAL OFFICE OCCUPATIONS	7,650	7,650	0	0	1,850	1,860
Stenographers	170	160	-4	-10	50	40
Receptionists, Information Clerks	710	780	11	80	160	240
Typists and Word Processors	1,020	920	-10	-100	200	110
Personnel Clerks, Except Payroll	80	80	0	0	10	10
File Clerks	170	170	1	0	40	40
Order Clerks: Materials, Service	170	170	-2	0	40	40
Statistical Clerks	50	50	-10	-10	10	0
Interviewing Clerks, Ex. Personnel	90	100	11	10	20	30
Customer Service Reps, Utilities	60	60	0	0	10	10
Bookkeeping & Accounting Clerks	2,460	2,440	-1	-20	640	630
Payroll and Timekeeping Clerks	190	180	-3	-10	40	40
Billing, Cost and Rate Clerks	300	280	-5	-20	50	40
General Office Clerks	2,170	2,240	3	70	570	640
DATA PROCESSING, OFFICE MACHINES	710	680	-4	-30	50	20

Figure 10 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Bill., Post, Calculating Mach.Op	90	90	-3	0	10	10
Computer Operators, Exc. Periph.	180	190	4	10	10	10
Data Entry Keyers, Ex. Composing	300	260	-12	-40	10	-20
Dupl., Mail, & Other Office Equ.	110	110	1	0	20	20
COMMUNICATIONS EQUIP. OPERATORS	310	300	-3	-10	80	70
Switchboard Operators	240	240	0	0	60	60
Central Office Operators	50	40	-15	-10	10	10
MAIL & MESSAGE DISTRIB. WORKER	470	490	6	30	130	170
Mail Clerks, Exc. Mail Machine	120	130	5	10	30	40
Postal Mail Carriers	260	270	7	20	70	90
Postal Service Clerks	50	50	8	0	10	20
MATERIAL RECORD., SCHED., DISTRIB	1,780	1,770	-1	-10	340	330
Dispatcher:Police, Fire, Ambulance	100	100	6	10	20	30
Dispatchers: Exc. Pol.,Fire,Amb.	90	90	-2	0	10	10
Production, Expediting Clerks	140	150	5	10	20	30
Meter Readers, Utilities	120	110	-7	-10	30	20
Stock Clerks:Stockroom Or Wareh.	540	520	-4	-20	110	80
Order Fillers, Sales	170	160	-7	-10	30	10
Traffic, Shipping, & Rec. Clerks	450	460	3	10	80	90
OTHER CLERICAL & ADM.SUPPORT	510	550	7	40	110	150
SERVICE OCCUPATIONS	22,960	24,490	7	1,530	5,520	7,040
FIRST LINE SUPERVISORS, SERVICE	360	390	8	30	230	250
Police and Detective Supervisors	180	200	10	20	40	50
Housekeepers, Institutional	150	150	6	10	180	190
PRIVATE HOUSEHOLD OCCUPATIONS	750	780	4	30	430	460
Housekeepers and Butlers	90	100	4	0	20	30
Child Care Wkrs., Pvt. Household	370	380	4	10	80	90
Cleaners & Servants, Pvt. House.	280	290	4	10	330	340
PROTECTIVE SERVICE OCCUPATIONS	1,700	1,850	9	150	340	490
Fire Fighters	260	280	9	20	40	60
Police Detectives & Investigator	60	70	10	10	10	20
Police Patrol Officers	550	600	9	50	40	90
Correction Officers and Jailers	150	180	16	30	10	40
Guards and Watch Guards	260	280	7	20	130	150
FOOD AND BEVERAGE OCCUPATIONS	9,900	10,440	5	540	2,180	2,720
Hosts & Hostesses: Rest., Lounge	300	320	5	20	80	100
Bartenders	660	720	9	60	150	210
Waiters and Waitresses	2,640	2,810	6	170	320	480
Dining Room & Bartender Helpers	570	610	8	40	60	100
Bakers, Bread and Pastry	320	350	9	30	110	130
Cooks, Restaurant	770	820	6	50	250	300
Cooks, Institution or Cafeteria	650	710	9	60	210	270
Cooks, Fast Food and Short Order	760	770	1	10	160	170
Food Preparation Workers	1,310	1,390	6	70	440	520
Food Counter, Fountain & Related	1,540	1,560	1	20	320	340
HEALTH SERVICE OCCUPATIONS	3,250	3,520	8	270	780	1,050
Dental Assistants	260	310	18	50	30	80
Medical Assistants	120	150	21	30	30	60
Nursing Aides and Orderlies	2,000	2,120	6	120	460	570
Home Health Aides	260	310	17	40	110	150
Psychiatric Aides	230	210	-8	-20	50	30
Physical, Correct.Therapy Assist	90	120	31	30	20	50
Pharmacy Assistants	100	110	7	10	20	30

Figure 10 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
CLEANING & BUILDING SERVICE OCC.	3,670	3,900	6	230	790	1,020
Janitors, Cleaners, Maids	3,260	3,460	6	200	700	900
PERSONAL SERVICE OCCUPATIONS	2,510	2,710	8	200	580	780
Barbers	160	170	4	10	80	90
Hairdressers and Cosmetologists	850	890	4	40	180	220
Amusement & Recreation Attendant	360	390	9	30	70	110
Social Welfare Service Aides	140	170	19	30	60	80
Child Care Workers	930	1,030	11	100	190	290
OTHER SERVICE WORKERS	830	910	10	80	180	270
AGRICULTURE, FORESTRY, FISHING	2,350	2,260	-4	-90	580	490
FARM OPERATORS AND MANAGERS	860	750	-13	-110	200	80
Farmers	770	660	-14	-110	150	40
Farm Managers	90	80	-5	0	50	40
SUPERVISORS, FARM, FOREST, AG.REL	50	50	13	10	10	10
FORESTRY AND LOGGING OCCUPATIONS	280	330	17	50	40	90
Log Handling Equipment Operators	100	110	14	10	20	40
Logging Tractor Operators	160	200	22	40	20	60
FARM WORKERS	390	310	-21	-80	70	-10
OTHER AGRIC., FOREST, FISH.	770	830	7	50	270	320
Forest and Conservation Workers	180	190	6	10	40	40
Gardeners and Groundskeepers	430	460	8	30	190	220
PRECISION PRODUCTION AND REPAIR	14,830	15,160	2	330	3,100	3,400
BLUE COLLAR WORKER SUPERVISORS	1,850	1,890	2	30	390	430
MECHANICS, INSTALLERS, REPAIRERS	5,740	5,780	1	40	1,130	1,170
Industrial Machinery Mechanics	830	830	0	0	180	180
Millwrights	280	310	9	20	50	70
Maintenance Repairers, Gen.Util.	1,030	1,060	3	30	220	260
Vehicle & Mobile Equip. Mechanic	2,040	2,030	0	-10	320	310
Automotive Mechanics	860	880	2	20	140	150
Automotive Body, Related Repairer	240	250	3	10	30	40
Bus, Truck, Diesel Eng. Mechanic	310	310	2	10	40	50
Mobile Heavy Equipment Mechanics	370	360	-4	-10	60	50
Rail Car Repairers	70	50	-20	-10	10	-10
Farm Equipment Mechanics	70	60	-16	-10	10	0
Aircraft Mechanics	50	50	13	10	10	20
Communications Equip. Mechanics	130	110	-16	-20	30	10
Central Office & PBX Instal/Rpr.	90	70	-18	-20	20	10
Electrical & Electronic Eq. Mech.	650	660	1	10	100	100
Telephone & Cable TV Instal/Rpr.	100	90	-4	0	0	-10
Home Entertainment Eq. Repairers	70	70	4	0	10	10
Home Appli. & Power Tool Repairer	140	130	-7	-10	30	20
Electronics Repairers, Comm. & Ind.	50	60	13	10	10	20
Electrical Powerline Instal/Rpr.	240	250	4	10	40	40
Other Mechanics, Installers, Rep	780	790	1	10	250	250
Heating, A/C, Refrig. Mechanics	130	140	3	0	30	40
Precision Instrument Repairers	60	60	5	0	50	50
Office Machine, Register Servicer	60	50	-15	-10	10	0
Tire Repairers and Changers	70	70	-1	0	10	10
CONSTRUCTION TRADES, EXTRACTIVE	4,770	4,920	3	150	970	1,110

Figure 10 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Construction Workers	4,540	4,690	3	150	920	1,060
Carpenters	1,310	1,370	4	60	280	340
Drywall Installers & Finishers	100	100	6	10	20	30
Electricians	850	850	0	0	150	150
Bricklayers and Stone Masons	150	160	5	10	40	40
Concrete and Terrazzo Finishers	100	110	7	10	10	20
Struct. & Reinforce. Metal Worker	70	70	10	10	10	20
Painters and Paperhangers	390	410	5	20	110	130
Plumber, Pipefitter, Steamfitter	410	420	4	20	100	110
Pipelayers & Pipelaying Fitters	60	60	5	0	10	10
Carpet Installers	100	100	9	10	10	10
Paving, Surfacing, Tamping	60	60	2	0	0	0
Highway Maintenance Workers	450	480	7	30	90	120
Roofers	130	140	5	10	10	10
Extractive and Blasting Workers	230	230	-2	-10	50	40
Mining Quarrying & Tunneling Occ	100	90	-6	-10	20	10
PRECISION PRODUCTION OCCUPATIONS	1,830	1,900	4	70	460	530
Precision Metal Workers	650	660	2	10	130	140
Tool and Die Makers	60	70	10	10	10	20
Machinists	280	270	-3	-10	50	40
Sheet Metal Workers	220	220	3	10	40	40
Precision Woodworkers	260	290	13	30	60	90
Precision Textile, Apparel, Furn	270	270	2	0	130	130
Custom Tailors and Sewers	120	130	2	0	80	80
Upholsterers	90	90	6	10	40	40
Precision Printing Workers	130	150	16	20	40	50
Precision Lithographers & Photo.	50	60	17	10	10	20
Precision Food Workers	310	300	-4	-10	70	60
Butchers and Meatcutters	240	230	-5	-10	50	40
Bakers, Manufacturing	60	60	0	0	20	20
Other Precision Workers	210	230	8	20	40	60
PLANT & SYSTEM OCCUPATIONS	640	680	6	40	140	180
Water & Waste Treat. Plant Oper.	180	200	7	10	40	60
Power Distributors & Dispatchers	100	110	9	10	10	20
Stationary Engineers	80	80	3	0	30	30
Power & Reactor Plant Operators	130	130	6	10	30	40
OPERATOR, FABRICATOR AND LABORER	16,150	16,560	3	410	3,490	3,880
INSPECTORS & RELATED OCCUPATIONS	310	330	5	20	70	80
MACH.SET.,SET-UP OP.,OPER.& TEND	4,030	4,180	4	150	900	1,020
Metal & Plas. Mach. Set/Ops/Tend	650	670	3	20	110	110
Grinding, Buffing Mach. Set/Op. M/P	60	60	3	0	10	10
Machine Tool Cutting Oper., M/P	60	50	-2	0	10	10
Machine Forming Operators, M/P	50	50	4	0	10	10
Welding Machine Set/Ops/Tenders	50	40	-13	-10	10	0
Woodworking Machine Setters, Op.	290	310	7	20	60	80
Head Sawyers & Saw Mach. Opr/Tend	160	180	12	20	40	60
Woodworking Machine Operators	120	120	0	0	30	30
Printing, Binding, & Related Occ	370	450	20	70	70	140
Offset Lithographic Press Setter	50	60	28	10	10	20
Bindery Mach. Operators/Set/Tend	80	100	23	20	20	40
Typesetting Mach. Operator/Tend.	50	50	6	0	10	10
Printing Press Mach. Ops/Set/Tend	80	90	16	10	20	40
Textile Mach. Operators & Related	490	460	-6	-30	180	150
Sewing Mach. Operator, Garment	160	140	-9	-10	60	40
Laundry, Drycleaning Mach. Oper.	220	220	-2	0	90	80
Other Mach. Set, Operators, Tender	2,240	2,300	3	60	480	540
Furnace, Kiln, Oven, Kettle Oper.	200	190	-5	-10	60	50
Cutting & Slicing Mach. Set/Ops	60	60	7	0	10	20

Figure 10 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Painting Machine Operators	250	260	6	10	60	70
Separating, Filtering Mach. Op.	80	70	-8	-10	20	10
Crushing & Mixing Machine Oper.	510	520	1	10	80	90
Extruding & Forming Mach.Set/Ops	180	200	9	20	40	60
Packaging & Filling Machine Oper.	250	260	4	10	70	80
HAND WORKING OCC., INC. ASSEMBLER	1,900	2,000	6	110	340	440
Precision Assemblers	140	190	38	50	20	70
Electromech Eq Assembler -Prec	60	100	59	40	10	50
Other Hand Workers & Assemblers	1,760	1,820	3	50	320	370
Electrical, Electronic Assembler	50	60	6	0	10	10
Welders and Cutters	640	610	-4	-30	90	60
TRANSP. & MAT. MOVING MACH.OPER.	6,110	6,170	1	60	1,380	1,450
Motor Vehicle Operators	3,740	3,980	7	240	880	1,130
Truck Drivers	2,470	2,580	4	110	530	640
Bus Drivers	230	270	17	40	70	110
Bus Drivers, School	680	770	14	100	210	310
Taxi Drivers and Chauffeurs	80	90	10	10	40	40
Driver/Sales Workers	260	250	-5	-10	40	20
Rail Transportation Workers	310	240	-23	-70	60	-10
Railroad Conductors, Yardmasters	60	40	-26	-20	10	0
Railroad Brake, Signal, Switch	120	100	-21	-30	10	-10
Water and Air Transp. Workers	190	140	-26	-50	30	-30
Mates and Able Seamen	110	70	-30	-30	20	-10
Material Moving Equipment Oper.	1,370	1,320	-4	-50	310	270
Excavation Loading Machine Oper.	180	180	0	0	40	40
Grader, Dozer, Scraper Operators	380	370	-2	-10	150	150
Crane and Tower Operators	60	60	0	0	10	10
Industrial Truck & Tractor Oper.	320	270	-15	-50	40	-10
Operating Engineers	240	250	5	10	40	60
Other Transp., Mat.Moving Opr	500	480	-2	-10	110	90
Service Station Attendants	320	320	0	0	60	60
HELPER, LABORER, MAT.MOVER, HAND	3,790	3,870	2	80	800	880
Construction Trades Helpers	380	390	3	10	80	90
Machine Feeders and Offbearers	240	270	11	30	40	60
Hand Freight, Stock, Mat. Movers	1,130	1,170	3	40	260	290
Refuse Collectors	70	70	4	0	20	20
Freight & Material Movers, Hand	530	530	-1	-10	110	110
Hand Packers and Packagers	390	420	7	30	110	130
Vehicle, Equipment Cleaners	140	150	10	10	20	40
Other Helper, Laborer, Mover	2,050	2,050	0	0	430	430

*Calculated using unrounded numbers

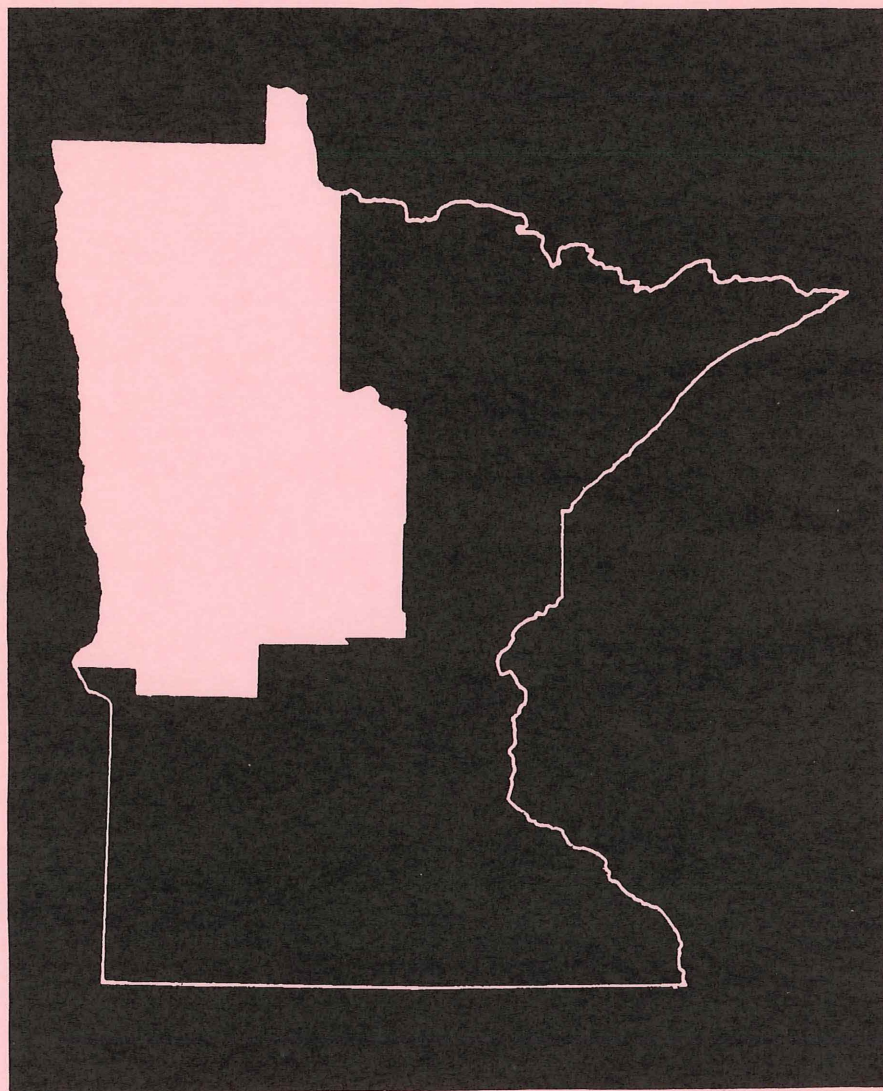
**Total Openings includes openings due to growth or decline (numeric change between 1993 and 1986 employment), plus openings from labor force separations (workers who retire, die, or leave the labor force for other reasons, such as disability or family responsibilities). This does not include openings that are the result of workers changing occupations or geographic location.

***Sales Supervisors, Sales Engineers, and Sales Representatives

NOTE: Those occupations which employed less than 50 people in 1986 have been left out of this table, as well as those "All Other" occupations which were on a detail level, such as "All Other Managers and Administrators".

Figure 10 (cont.)

Northwest Minnesota



Northwest Minnesota

This region consists of 26 counties in the northwestern part of the state. The area contains four economic development regions--one, two, four, and five. Regions 1 and 4 are largely dependent on agriculture and related industries, yet contain some small metropolitan areas. Region 2 is largely wooded and dependent on logging and tourism, and Region 5 has a somewhat diverse economy based on recreational activities and farming. Eight percent of all jobs in the state were located in Northwest Minnesota in 1986. The services industry presently accounts for 28 percent of the area's jobs. Trade is the next largest industry, followed by agriculture, forestry and fishing. (See Figure 11.)

Total employment in Northwest Minnesota is projected to increase from 177,350 in 1986 to 187,360 in 1993, a six percent gain. This is slower than the statewide growth rate (11%) but akin to the growth rate for Greater Minnesota (7%). Of the industry groups, manufacturing is expected to be the fastest-growing and services is anticipated to add the most workers. (See Figure 12.) Agriculture, forestry, and fishing is projected to lose a substantial number of jobs.

The Northwest region has one-quarter of the state's agriculture, forestry, and fishing industry employment. There is a projected loss of 3,770 jobs, because of mechanization, and farms consolidating and operating with fewer workers. Agricultural services is expected to add approximately 150 jobs.

Mining is a tiny industry in this area, with little foreseen change.

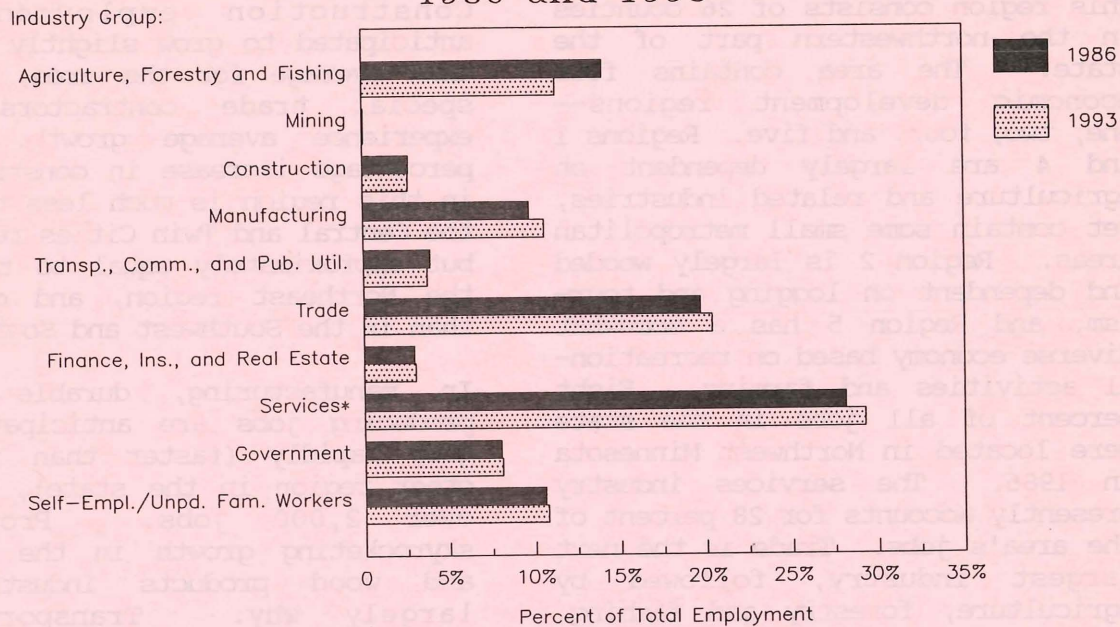
Construction employment is anticipated to grow slightly slower than average for the area, except special trade contractors will experience average growth. The percentage increase in construction in this region is much less than in the Central and Twin Cities regions, but approximately equal to that in the Northeast region, and greater than in the Southwest and Southeast.

In manufacturing, durable goods producing jobs are anticipated to grow rapidly (faster than in any other region in the state), adding over 2,000 jobs. Projected skyrocketing growth in the lumber and wood products industry is largely why. Transportation equipment and nonelectrical machinery will add much smaller yet still significant numbers of workers. Nondurable goods jobs are expected to increase about average. Printing and publishing is forecasted to add the most workers.

Jobs in transportation, communication, and public utilities are anticipated to barely increase. Local and interurban passenger transit and radio and television broadcasting should add the most workers. Railroad jobs are projected to decline substantially.

Trade jobs are forecasted to grow faster than average. Retail trade is projected to grow by 10 percent and add 3,000 workers, with eating and drinking places adding nearly half of those jobs. Grocery stores will generate the second-largest number of jobs, followed by miscellaneous retail stores. The number of positions in wholesale trade is expected to increase slower than average, with the most workers being added in groceries and related

Employment Distribution by Industry Group Northwest Minnesota 1986 and 1993



* Services includes state and local government education and hospital employment

Figure 11

products.

Finance, insurance, and real estate is projected to expand slightly faster than average, with real estate gaining the most jobs. The banking industry is projected to stagnate here (and nationwide) because of loan losses, automation, and heavy competition from other financial service industries.

Services, the largest industry group, is projected to grow faster than average and add the most new jobs of all industry groups. Many new jobs are expected to be generated by non-hospital health services and educational services (especially elementary and secondary schools); fewer but still quite numerous positions will be added in membership organizations, hotels and other lodging places, and business services. Efforts to control health service costs will nearly

halt growth in the number of workers in hospitals, including state and local government hospitals, between 1986 and 1993.

Government employment growth is forecasted to be average. Jobs in federal government, excluding post office, are projected to grow fastest; local government, excluding non-library educational services and hospitals, is expected to gain the most workers.

Nonagricultural self-employed and unpaid family workers is projected to increase at the average rate.

From an occupational standpoint, the largest growth in this region is expected in the service and professional, paraprofessional, & technical occupational categories. These two categories will also provide the most total job openings. (See Figure 13.) Six of the eight

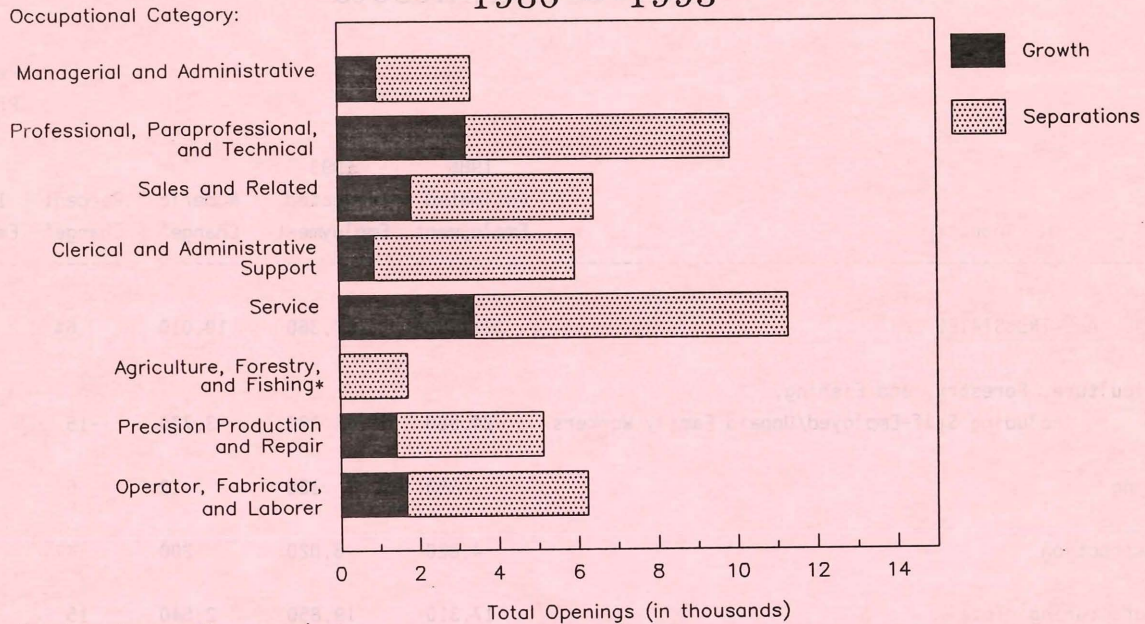
Employment Projections by Industry, 1986 - 1993 Northwest Minnesota

Industry	1986 Estimated Employment	1993 Projected Employment	Numeric Change*	Percent Change*	Percent of Projected 1993 State Industry Employment
TOTAL, ALL INDUSTRIES	177,350	187,360	10,010	6%	8%
Agriculture, Forestry, and Fishing, including Self-Employed/Unpaid Family Workers	24,960	21,190	-3,770	-15	24
Mining	150	160	10	6	2
Construction	4,820	5,020	200	4	6
Manufacturing, Total	17,310	19,850	2,540	15	5
Durable Goods Manufacturing	9,180	11,310	2,130	23	5
Nondurable Goods Manufacturing	8,130	8,550	410	5	5
Transportation, Communication, and Public Utilities	6,980	7,060	80	1	7
Transportation	4,100	4,070	-30	-1	6
Communication and Public Utilities	2,880	2,990	110	4	9
Trade, Total	34,920	38,150	3,230	9	7
Wholesale Trade	5,950	6,170	220	4	5
Retail Trade	28,970	31,980	3,000	10	8
Finance, Insurance and Real Estate	5,280	5,700	430	8	4
Services, Total	49,880	54,810	4,930	10	8
Health Services, including State and Local Government Hospitals	15,450	17,350	1,900	12	9
Educational Services, including Non-library State and Local Government Educational Services	16,810	17,850	1,040	6	12
Other Services, including Private Household Workers	17,620	19,620	2,000	11	6
Government, Total	14,220	15,210	990	7	10
Federal Government, including Postal Service	2,230	2,620	390	18	7
State Government, except Non- library Educational Services and Hospitals	2,360	2,410	50	2	9
Local Government, except Non- library Educational Services and Hospitals	9,640	10,190	550	6	12
Self-Employed/Unpaid Family Workers - Nonagricultural	18,820	20,190	1,370	7	12

*Calculated using unrounded numbers

Figure 12

Projected Job Openings by Occupational Category Northwest Minnesota 1986 - 1993



* Number of separations openings left after offsetting the employment decline in this category.

Figure 13

categories are projected to grow faster than the region's overall average, and absorb employment from agriculture, forestry, and fishing, which is expected to plummet, and from clerical and administrative support, projected to increase slower than average. (See Figures 3, 14 and 17.)

Of specific occupations, retail salespersons is projected to add the most new workers; farmers is projected to decline most. (See Figures 15 and 16.) Food service- and nursing-related occupations appear four and three times, respectively, in the list of the twenty projected biggest growers.

In the managerial and administrative category, food service and lodging managers is projected to grow fastest and add 110 workers. The largest growth will be for general managers and top executives.

In the professional, paraprofessional, and technical category, the fastest-growing subcategory is computer and related occupations. It is expected to increase by 100 workers. Health practitioners and technicians is anticipated to also grow fast and add over 1,100 jobs.

Sales and related occupations is projected to be one of the two fastest-growing occupational categories. All occupations in this category are expected to grow faster than average. Retail and related occupations account for two-thirds of the projected growth in this category.

Due to the large numbers of general office clerks, secretaries, receptionists, and teacher aides & educational assistants and/or growth in the industries employing them, these four occupations will add the most workers in the clerical and

Employment Distribution by Occupational Category Northwest Minnesota 1986 and 1993

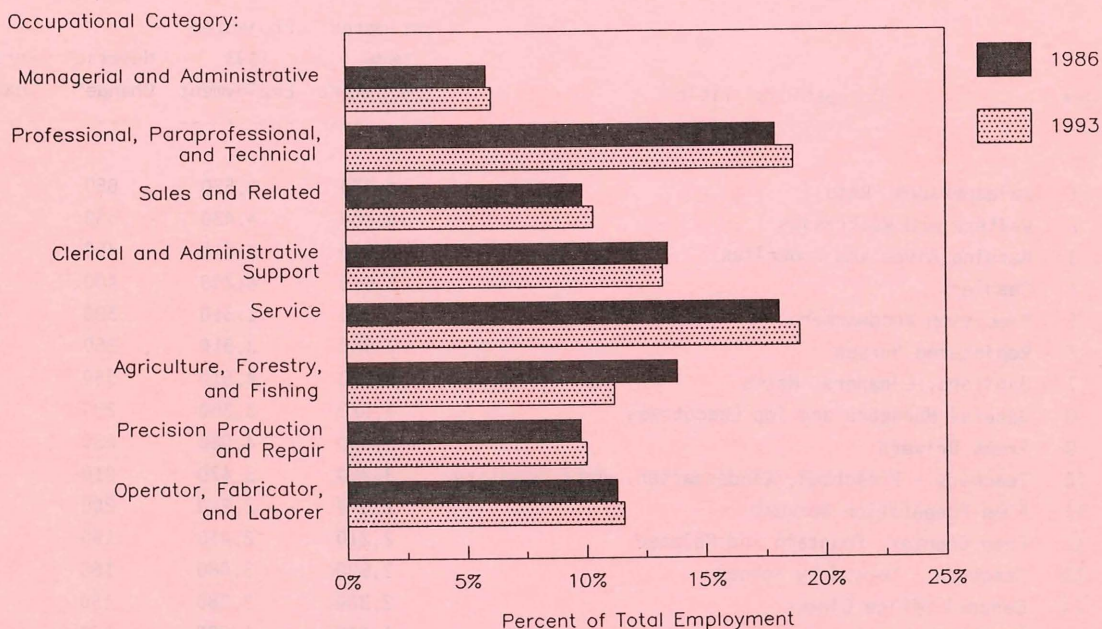


Figure 14

administrative support category. Typists and word processors are projected to decline, although there will still be openings because of separations.

Service occupations is the other fastest-growing category. Only three occupations in this category will grow slower than average. Health service occupations will grow fastest. Food and beverage occupations will add the most jobs.

In the dwindling agriculture, forestry and fishing category, 80 additional gardeners and groundskeepers are projected. Logging tractor operators, forest & conservation officers, and nonfarm animal caretakers are also projected to increase slightly. Farmer and farm worker job categories account for the bulk of the job loss.

Precision production occupations

will propel the growth in the precision production and repair category. Precision woodworkers are anticipated to grow by 43 percent. Blue collar worker supervisors and carpenters should also add significant numbers of workers.

Reflecting the industry growth, head sawyers and saw machine operators & tenders is anticipated to be the fastest growing occupation in the operator, fabricator and laborer category. Truck drivers will add the most workers. The number of railroad workers is expected to decrease.

In the Northwest region, many more job openings are expected from labor force separations than from employment growth. In total, 49,940 job openings are projected between 1986 and 1993, 20 percent from growth and 80 percent from separations.

Occupations with Largest Projected Employment Growth
1986 - 1993
Northwest Minnesota

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Salespersons, Retail	4,870	5,520	650	13%
2	Waiters and Waitresses	3,880	4,430	550	14
3	Nursing Aides and Orderlies	3,510	3,910	400	12
4	Cashiers	3,860	4,250	400	10
5	Precision Woodworkers	910	1,310	390	43
6	Registered Nurses	2,950	3,310	360	12
7	Janitors, Cleaners, Maids	4,170	4,510	350	8
8	General Managers and Top Executives	3,070	3,360	290	10
9	Truck Drivers	3,850	4,080	230	6
10	Teachers - Preschool, Kindergarten, and Elementary	3,260	3,470	210	7
11	Food Preparation Workers	2,040	2,240	200	10
12	Food Counter, Fountain and Related	2,210	2,410	190	9
13	Teachers - Secondary School	2,900	3,080	180	6
14	General Office Clerks	2,800	2,980	180	6
15	Stock Clerks, Sales Floor	1,710	1,880	170	10
15	Secretaries	3,680	3,850	170	5
17	Licensed Practical Nurses	1,380	1,550	170	12
17	Blue Collar Worker Supervisors	1,950	2,110	170	9
19	Cooks, Restaurant	1,130	1,290	170	15
20	Hairdressers and Cosmetologists	1,120	1,280	150	14

Figure 15

Occupations with Largest Projected Employment Decline
1986 - 1993
Northwest Minnesota

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Farmers	15,370	13,250	-2,120	-14%
2	Farm Workers	6,190	4,850	-1,340	-22
3	Farm Managers	1,080	960	-120	-11
4	Typists and Word Processors	1,290	1,180	-120	-9
5	Industrial Truck and Tractor Operators	340	310	-30	-9
6	Railroad Brake, Signal, Switch Operators	100	70	-30	-28
6	Data Entry Keyers, Except Composing	340	310	-30	-8
8	Nursery Workers	100	90	-20	-16
9	Psychiatric Aides	260	250	-20	-6
9	Railroad Conductors, Yardmasters	60	40	-20	-27

*Calculated using unrounded numbers

Figure 16

Employment Projections by Specific Occupation 1986 - 1993 Northwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
TOTAL, ALL OCCUPATIONS	177,350	187,360	6%	10,010	39,960	49,940
MANAGERIAL AND ADMINISTRATIVE OCC.	10,330	11,330	10	1,010	2,370	3,370
Financial Managers	830	880	7	60	140	200
Personnel, Training, Labor Rel.Mgr	170	180	5	10	30	40
Purchasing Managers	360	370	5	20	40	60
Marketing, Adv., Public Rel.Mgrs	500	530	7	40	90	130
Postmasters, Mail Superintendent	130	140	7	10	70	80
Education Administrators	470	500	7	30	90	130
Property, Real Estate Management	100	120	11	10	50	60
Food Service & Lodging Managers	780	890	13	110	200	310
Public Adm., Leg., Gen. Admin.	190	200	5	10	60	70
General Managers and Top Exec.	3,070	3,360	10	290	770	1,060
PROFESSIONAL, PARAPROFESS.,TECH.	31,760	34,990	10	3,240	6,590	9,850
MANAGEMENT SUPPORT OCCUPATIONS	3,640	4,000	10	360	710	1,090
Financial Specialists	1,390	1,540	11	160	250	410
Loan Officers and Counselors	130	140	7	10	20	30
Accountants and Auditors	1,210	1,350	11	140	230	370
Purchasing Agents and Buyers	440	450	2	10	70	80
Wholesale, Retail Buyers, Ex.Farm	300	300	0	0	40	40
Purchasing Agent Ex.Who/Ret/Farm	150	160	8	10	30	40
Personnel Specialists & Related	250	260	4	10	40	60
Employment Interviewers	50	60	12	10	10	10
Personnel, Train.,Labor Rel. Spec	200	210	2	10	40	40
Other Management Support Occ.	1,560	1,740	12	190	350	540
Cost Estimators	170	190	13	20	10	40
Management Analysts	90	100	8	10	30	40
Construction, Building Inspector	80	80	5	0	40	50
Compliance & Enforce. Inspectors	190	220	14	30	40	70
Tax Examiner,Collector,Rev.Agent	70	80	15	10	10	30
ENGINEERS, ARCHITECTS, SURVEYORS	1,620	1,810	12	190	290	480
Engineers	600	670	12	70	90	160
Civil Engineers, Incl. Traffic	170	180	6	10	40	40
Electrical & Electronic Engineer	140	160	20	30	10	40
Industrial Engineers, Exc. Safety	50	60	12	10	10	10
Mechanical Engineers	140	150	13	20	20	40
Architects	120	130	11	10	20	40
Architects, Exc. Land. & Marine	90	100	8	10	10	20
Surveying and Mapping Scientists	100	110	9	10	20	30
Engineering Technicians	810	900	12	100	150	250
Electrical & Electronic Techns.	130	160	21	30	10	40
Drafters	310	340	9	30	70	100
NATURAL SCIENTISTS	760	840	10	80	140	220
Physical Scientists	120	120	3	0	10	10
Chemists, Except Biochemists	60	60	4	0	10	10
Life Scientists	390	450	14	60	70	130
Forester, Conservation Scientist	130	140	14	20	10	40
Agricultural and Food Scientists	130	150	17	20	40	60
Biological Scientists	80	90	12	10	10	10
Physical & Life Sci. Technicians	250	270	8	20	60	80
COMPUTER AND MATHEMATICAL OCC.	610	710	16	100	90	190
Computer and Related Occupations	570	670	18	100	90	190
Computer Systems Analysts, EDP	240	280	19	50	10	60
Computer Programmers & Aides	330	390	17	60	80	130
SOCIAL SCIENTISTS,RECR.,RELIGION	2,240	2,440	9	190	620	830
Social Scientists	250	280	11	30	30	60
Urban and Regional Planners	70	70	7	10	0	10

Figure 17

Employment Projections by Specific Occupation 1986 - 1993 Northwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Psychologists	150	170	14	20	20	40
Social, Recreation, Religion Occ	1,990	2,160	8	170	600	770
Social Service Technicians	240	250	5	10	40	60
Social Workers	910	980	7	70	200	270
Recreation Workers	370	410	10	40	120	160
Clergy	320	340	9	30	160	190
Directors, Religious Activ./Educ.	160	180	13	20	80	100
LAW AND RELATED OCCUPATIONS	1,160	1,290	11	130	350	480
Lawyers and Judges	970	1,060	9	90	310	400
Judges, Magistrates, Adjudicator	50	50	8	0	10	10
Lawyers	920	1,000	9	80	300	390
Legal Assistants and Technicians	200	240	20	40	40	80
Paralegal Personnel	50	60	26	10	10	20
Title Examiners and Clerks	60	80	29	20	10	30
TEACHERS, LIBRARIANS, COUNSELORS	10,340	11,050	7	720	2,110	2,820
College and University Faculty	690	720	4	30	150	180
Teachers and Instructors	9,110	9,760	7	650	1,830	2,480
Teachers, Preschool, Kinder, Elem.	3,260	3,470	7	210	700	910
Teachers, Secondary School	2,900	3,080	6	180	430	610
Teachers, Vocational Education	490	570	16	80	150	220
Instructors, Nonvocational Educ.	360	400	10	40	110	140
Farm & Home Management Advisors	50	50	-2	0	10	10
Librarians, Archivists, Curators	540	570	6	30	130	170
Librarians, Professional	270	290	7	20	80	100
Technical Assistants, Library	100	100	4	0	30	40
Vocational & Educ. Counselors	160	170	6	10	20	30
HEALTH PRACTITIONERS, TECHNICIANS	8,260	9,360	13	1,110	1,620	2,740
Health Treating Practitioners	1,170	1,340	15	180	460	640
Physicians and Surgeons	570	660	15	90	220	320
Dentists	390	440	14	50	170	220
Optometrists	60	70	21	10	30	40
Veterinarians, Vet. Inspectors	130	150	14	20	30	50
Therapists	550	640	16	90	60	150
Respiratory Therapists	60	60	9	10	0	10
Occupational Therapists	90	100	22	20	10	30
Physical Therapists	140	180	30	40	10	60
Speech Pathologists, Audiologists	120	130	10	10	10	30
Recreation Therapists	100	110	9	10	10	10
Health Care Maintenance, Treating	5,100	5,720	12	620	810	1,430
Registered Nurses	2,950	3,310	12	360	470	830
Licensed Practical Nurses	1,380	1,550	12	170	180	340
Emergency Medical Technicians	180	200	11	20	20	40
Physician Assistants	60	80	19	10	0	10
Opticians, Dispensing & Measur.	110	130	22	20	30	50
Pharmacists	300	330	10	30	80	110
Dietitians and Nutritionists	90	90	6	10	20	30
Med. Technicians & Technologists	980	1,140	16	160	190	350
Dental Hygienists	170	220	32	50	10	70
Med. & Clinic Lab Tech. & Techno	410	440	8	30	90	130
Medical Records Techn. & Technol.	110	130	28	30	40	60
Radiologic Technol. & Technician	180	210	19	30	40	80
Surgical Technicians	80	90	10	10	10	10
Other Health Prof., Para, Tech	470	530	14	60	110	170
WRITER, ARTIST, ENTER., ATHLETE	1,780	1,970	11	190	360	550
Writers, Editors, Incl Technical	250	280	13	30	60	90
Public Relations Specialists	140	150	6	10	40	40
Radio & TV Accounser & Newscast.	150	180	17	30	40	60
Reporters and Correspondents	110	120	17	20	40	60
Photographers	90	100	12	10	20	40
Camera Operators, TV & Movies	70	80	12	10	10	20
Broadcast Technicians	60	70	17	10	10	10
Designers	300	330	8	30	60	90

Figure 17 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Artists and Related Workers	300	320	8	20	40	60
Musicians	240	260	8	20	50	70
Prod., Direct., Actors, Entertainer	60	70	14	10	0	10
OTHER PROF., PARAPROF., TECHN.	1,360	1,530	13	170	300	470
SALES AND RELATED OCCUPATIONS	17,500	19,360	11	1,860	4,550	6,420
SALES OCCUPATIONS, SERVICES	1,530	1,710	12	190	530	730
Insurance Sales Workers	640	710	10	70	200	270
Brokers, Real Estate	60	70	11	10	20	30
Sales Agents, Real Estate	540	610	13	70	220	290
Securities, Financial Serv. Sales	80	90	10	10	20	30
Travel Agents	160	200	20	30	60	90
SALES OCC., RETAIL AND RELATED	10,580	11,820	12	1,230	2,850	4,080
Salespersons, Retail	4,870	5,520	13	650	1,600	2,250
Counter and Rental Clerks	160	170	8	10	40	60
Stock Clerks, Sales Floor	1,710	1,880	10	170	550	710
Cashiers	3,860	4,250	10	400	670	1,060
OTHER SALES & RELATED OCC.***	5,390	5,830	8	440	1,170	1,610
CLERICAL & ADMIN. SUPPORT OCC.	23,850	24,760	4	910	5,070	5,940
FIRST LINE SUPERVISORS, CLERICAL	1,190	1,260	6	70	220	290
INDUSTRY SPECIFIC SUPPORT OCC.	4,480	4,740	6	260	780	1,020
Banking, Security, Finance, Credit	1,630	1,660	2	30	190	220
Tellers	900	890	-1	-10	60	60
New Accounts Clerks	190	190	3	10	40	40
Loan and Credit Clerks	240	250	4	10	40	40
Adjustment Clerks	170	180	7	10	40	50
Statement Clerks	80	90	7	10	10	20
Records Processing Occ. Exc Finan	2,850	3,080	8	230	590	810
Insurance Adjusters, Investigator	50	60	19	10	10	10
Insurance Policy Process. Clerks	80	90	2	0	10	10
Welfare Eligibility Workers	240	260	7	20	20	40
Bill and Account Collectors	110	130	15	20	30	40
Court Clerks	80	90	12	10	10	20
Municipal Clerks	90	90	5	0	10	20
Hotel Desk Clerks	240	270	12	30	80	110
Res. & Ticket Agt., Travel Cons.	50	50	6	0	10	10
Library Assistants & Bookmobile	230	250	8	20	40	60
Teacher Aides & Educ. Assistants	1,530	1,640	7	110	330	430
SECRETARIES	3,680	3,850	5	170	780	950
GENERAL OFFICE OCCUPATIONS	10,000	10,240	2	250	2,440	2,670
Stenographers	210	200	-3	-10	60	50
Receptionists, Information Clerks	870	1,010	16	140	200	340
Typists and Word Processors	1,290	1,180	-9	-120	260	140
Personnel Clerks, Except Payroll	90	90	3	0	10	10
File Clerks	200	200	3	10	40	50
Order Clerks: Materials, Service	260	270	5	10	50	60
Statistical Clerks	50	50	-10	-10	10	0
Interviewing Clerks, Ex. Personnel	100	110	8	10	20	30
Customer Service Reps, Utilities	60	60	0	0	10	10
Bookkeeping & Accounting Clerks	3,410	3,460	1	40	900	940
Payroll and Timekeeping Clerks	230	220	-3	-10	50	40
Billing, Cost and Rate Clerks	390	390	-2	-10	60	60
General Office Clerks	2,800	2,980	6	180	760	930
DATA PROCESSING, OFFICE MACHINES	920	920	1	10	70	70

Figure 17 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Bill., Post, Calculating Mach.Op	140	140	0	0	10	10
Computer Operators, Exc. Periph.	260	290	9	20	10	40
Data Entry Keyers, Ex. Composing	340	310	-8	-30	10	-10
Dupl., Mail, & Other Office Equ.	140	140	3	0	30	40
COMMUNICATIONS EQUIP. OPERATORS	370	380	2	10	90	100
Switchboard Operators	280	290	4	10	70	80
Central Office Operators	80	80	0	0	20	20
MAIL & MESSAGE DISTRIB. WORKER	480	500	4	20	140	160
Mail Clerks, Exc. Mail Machine	150	150	1	0	40	40
Postal Mail Carriers	250	270	8	20	70	90
Messengers	60	60	-3	0	30	30
MATERIAL RECORD., SCHED., DISTRIB	2,140	2,220	4	80	410	490
Dispatcher:Police, Fire, Ambulance	100	110	6	10	20	30
Dispatchers: Exc. Pol., Fire, Amb.	140	140	1	0	30	30
Production, Expediting Clerks	100	110	12	10	10	30
Meter Readers, Utilities	100	90	-6	-10	20	10
Stock Clerks:Stockroom Or Wareh.	690	690	1	10	130	140
Order Fillers, Sales	250	260	2	0	50	60
Traffic, Shipping, & Rec. Clerks	580	620	6	40	110	140
OTHER CLERICAL & ADM.SUPPORT	600	650	8	50	130	180
SERVICE OCCUPATIONS	32,050	35,470	11	3,420	7,870	11,280
FIRST LINE SUPERVISORS, SERVICE	390	420	9	30	270	300
Police and Detective Supervisors	160	180	9	20	30	40
Housekeepers, Institutional	190	210	8	20	240	250
PRIVATE HOUSEHOLD OCCUPATIONS	1,130	1,200	6	70	660	730
Housekeepers and Butlers	140	150	6	10	30	40
Child Care Wkrs., Pvt. Household	550	590	6	30	120	150
Cleaners & Servants, Pvt. House.	420	450	6	30	500	530
PROTECTIVE SERVICE OCCUPATIONS	1,700	1,830	8	130	340	460
Fire Fighters	230	250	7	20	30	40
Police Detectives & Investigator	60	60	10	10	10	20
Police Patrol Officers	530	560	7	40	40	80
Correction Officers and Jailers	160	180	14	20	10	40
Guards and Watch Guards	270	290	7	20	130	150
FOOD AND BEVERAGE OCCUPATIONS	14,620	16,330	12	1,710	3,330	5,030
Hosts & Hostesses: Rest., Lounge	440	500	13	60	130	180
Bartenders	1,010	1,150	14	140	240	390
Waiters and Waitresses	3,880	4,430	14	550	480	1,040
Dining Room & Bartender Helpers	840	960	14	120	90	210
Bakers, Bread and Pastry	480	570	19	90	170	260
Cooks, Restaurant	1,130	1,290	15	170	380	550
Cooks, Institution or Cafeteria	990	1,040	6	60	320	370
Cooks, Fast Food and Short Order	1,120	1,220	9	100	250	340
Food Preparation Workers	2,040	2,240	10	200	710	900
Food Counter, Fountain & Related	2,210	2,410	9	190	480	670
HEALTH SERVICE OCCUPATIONS	4,990	5,610	13	630	1,200	1,830
Dental Assistants	290	380	29	90	30	110
Medical Assistants	120	150	27	30	30	60
Nursing Aides and Orderlies	3,510	3,910	12	400	810	1,220
Home Health Aides	300	350	15	50	120	160
Psychiatric Aides	260	250	-6	-20	60	40
Physical, Correct. Therapy Assist	120	160	33	40	30	70
Occupational Therapy Assistants	70	80	18	10	10	30
Pharmacy Assistants	120	130	8	10	30	40

Figure 17 (cont.)

**Employment Projections by Specific Occupation
1986 - 1993
Northwest Minnesota**

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
CLEANING & BUILDING SERVICE OCC.	4,700	5,090	8	390	1,020	1,400
Janitors, Cleaners, Maids	4,170	4,510	8	350	900	1,250
PERSONAL SERVICE OCCUPATIONS	3,490	3,840	10	350	820	1,170
Barbers	250	270	8	20	130	150
Hairdressers and Cosmetologists	1,120	1,280	14	150	250	410
Amusement & Recreation Attendant	500	560	12	60	100	160
Ushers, Lobby Att., Ticket Taker	60	50	-12	-10	10	0
Social Welfare Service Aides	140	140	4	10	50	60
Child Care Workers	1,370	1,470	8	100	280	390
OTHER SERVICE WORKERS	1,040	1,160	12	120	230	350
AGRICULTURE, FORESTRY, FISHING	24,510	20,980	-14	-3,530	5,260	1,720
FARM OPERATORS AND MANAGERS	16,450	14,210	-14	-2,250	3,540	1,290
Farmers	15,370	13,250	-14	-2,120	2,980	860
Farm Managers	1,080	960	-11	-120	550	430
SUPERVISORS, FARM, FOREST, AG.REL	150	140	-7	-10	30	10
FORESTRY AND LOGGING OCCUPATIONS	310	320	2	10	60	60
Fallers and Buckers	90	80	-12	-10	20	10
Log Handling Equipment Operators	130	120	-2	0	30	30
Logging Tractor Operators	70	80	26	20	10	20
FARM WORKERS	6,190	4,850	-22	-1,340	1,150	-190
OTHER AGRIC., FOREST, FISH.	1,410	1,470	5	60	480	550
Forest and Conservation Workers	80	90	10	10	10	20
Nursery Workers	100	90	-16	-20	40	30
Gardeners and Groundskeepers	700	780	11	80	320	390
Animal Caretakers, Except Farm	150	160	6	10	40	40
PRECISION PRODUCTION AND REPAIR	17,310	18,730	8	1,420	3,700	5,120
BLUE COLLAR WORKER SUPERVISORS	1,950	2,110	9	170	420	590
MECHANICS, INSTALLERS, REPAIRERS	6,180	6,480	5	300	1,230	1,520
Industrial Machinery Mechanics	480	520	7	30	110	140
Millwrights	90	100	8	10	10	20
Maintenance Repairers, Gen.Util.	1,150	1,260	9	100	260	360
Vehicle & Mobile Equip. Mechanic	2,660	2,760	3	90	430	520
Automotive Mechanics	1,360	1,400	3	40	220	270
Automotive Body, Related Repairer	390	400	4	20	50	60
Bus, Truck, Diesel Eng. Mechanic	370	390	5	20	50	60
Mobile Heavy Equipment Mechanics	240	270	14	30	40	80
Rail Car Repairers	50	40	-24	-10	10	-10
Farm Equipment Mechanics	130	120	-9	-10	40	20
Small Engine Specialists	80	80	3	0	10	10
Communications Equip. Mechanics	200	200	-3	-10	40	30
Central Office & PBX Instal/Rpr.	140	140	-3	0	30	20
Electrical & Electronic Eq. Mech.	660	700	5	30	90	130
Telephone & Cable TV Instal/Rpr.	130	130	0	0	0	0
Home Entertainment Eq. Repairers	90	100	11	10	20	30
Home Appli. & Power Tool Repairer	140	140	-1	0	30	30
Electrical Powerline Instal/Rpr.	180	190	3	10	30	40
Other Mechanics, Installers, Rep	920	960	4	40	290	320
Heating, A/C, Refrig. Mechanics	180	190	6	10	40	50
Precision Instrument Repairers	60	60	0	0	50	50
Office Machine, Register Servicer	80	80	-2	0	10	10
Tire Repairers and Changers	100	100	-1	0	20	20
CONSTRUCTION TRADES, EXTRACTIVE	5,360	5,680	6	320	1,100	1,430

Figure 17 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Construction Workers	5,250	5,560	6	320	1,080	1,400
Carpenters	2,010	2,150	7	140	430	570
Drywall Installers & Finishers	140	150	9	10	30	40
Electricians	630	650	4	30	120	150
Bricklayers and Stone Masons	190	200	6	10	40	60
Concrete and Terrazzo Finishers	120	120	5	10	10	20
Struct. & Reinforce. Metal Worker	60	70	10	10	10	20
Painters and Paperhangers	440	470	7	30	130	150
Plumber, Pipefitter, Steamfitter	410	430	6	30	100	130
Pipelayers & Pipelaying Fitters	70	70	6	0	10	20
Carpet Installers	140	160	11	20	10	30
Paving, Surfacing, Tamping	80	90	6	10	0	10
Highway Maintenance Workers	450	480	5	20	90	110
Roofers	120	130	9	10	10	10
Extractive and Blasting Workers	110	120	4	0	20	30
PRECISION PRODUCTION OCCUPATIONS	3,240	3,850	19	610	820	1,420
Precision Metal Workers	720	790	10	80	140	210
Tool and Die Makers	90	110	23	20	20	40
Machinists	280	310	10	30	50	80
Sheet Metal Workers	260	270	6	20	40	60
Precision Woodworkers	910	1,310	43	390	230	620
Precision Textile, Apparel, Furn	370	390	6	20	190	210
Custom Tailors and Sewers	160	170	7	10	110	130
Upholsterers	150	150	6	10	60	70
Precision Printing Workers	100	120	12	10	10	30
Precision Food Workers	850	910	7	60	190	250
Butchers and Meatcutters	690	740	8	50	150	200
Bakers, Manufacturing	70	80	9	10	20	30
Other Precision Workers	290	330	16	50	60	100
Dental Laboratory Technicians	50	50	15	10	10	10
PLANT & SYSTEM OCCUPATIONS	590	610	4	20	130	160
Water & Waste Treat. Plant Oper.	190	210	7	10	40	60
Power Distributors & Dispatchers	50	50	2	0	10	10
Stationary Engineers	90	90	0	0	30	30
Power & Reactor Plant Operators	100	110	6	10	20	30
OPERATOR, FABRICATOR AND LABORER	20,050	21,740	8	1,690	4,550	6,240
INSPECTORS & RELATED OCCUPATIONS	340	380	11	40	80	110
MACH. SET., SET-UP OP., OPER. & TEND	4,300	4,720	10	420	1,050	1,460
Metal & Plas. Mach. Set/Ops/Tend	920	1,050	14	130	180	300
Lathe, Turning Mach. Setter/Op, M/P	60	60	15	10	10	10
Grinding, Buffing Mach. Set/Op, M/P	60	70	16	10	10	20
Machine Tool Cutting Oper., M/P	50	60	20	10	10	10
Machine Forming Operators, M/P	80	90	12	10	10	20
Numerical Control Mach. Tool, M/P	60	80	19	10	10	20
Combin. Mach. Tool Set/Oper. M/P	60	70	14	10	10	20
Welding Machine Set/Ops/Tenders	70	70	1	0	10	10
Electrolytic Plating Mach. Oper.	50	60	13	10	10	20
Plastic Molding, Casting Oper.	90	120	30	30	20	50
Woodworking Machine Setters, Op.	370	490	32	120	90	210
Head Sawyers & Saw Mach. Opr/Tend	220	300	36	80	60	130
Woodworking Machine Operators	150	190	26	40	40	80
Printing, Binding, & Related Occ	310	350	16	50	60	110
Bindery Mach. Operators/Set/Tend	50	70	26	10	10	30
Printing Press Mach. Ops/Set/Tend	80	90	11	10	20	30
Textile Mach. Operators & Related	740	760	3	20	290	320
Sewing Mach. Operator, Garment	140	120	-11	-20	50	40
Sewing Mach. Oper., Non-Garment	130	130	6	10	50	60
Laundry, Drycleaning Mach. Oper.	360	380	5	20	150	180
Pressing Mach. Operator, Textiles	60	60	0	0	20	20
Other Mach. Set, Operators, Tender	1,960	2,060	5	100	430	530

Figure 17 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Northwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Cooking Machine Oper., Food/Tob.	100	100	-6	-10	20	10
Furnace, Kiln, Oven, Kettle Oper.	60	60	11	10	10	20
Low Pressure Boiler Operator	50	50	-2	0	10	10
Dairy Processing Equip. Operator	140	140	-1	0	20	20
Cutting & Slicing Mach. Set/Ops	80	80	7	10	10	20
Painters, Transportation Equip.	50	50	10	10	10	10
Painting Machine Operators	170	200	18	30	40	70
Separating, Filtering Mach. Op.	50	50	-7	0	10	10
Crushing & Mixing Machine Oper.	250	260	5	10	40	60
Extruding & Forming Mach. Set/Ops	150	160	7	10	40	40
Packaging & Filling Machine Oper.	420	440	6	20	120	140
HAND WORKING OCC., INC. ASSEMBLER	3,580	4,160	16	580	780	1,350
Precision Assemblers	230	260	15	40	40	70
Other Hand Workers & Assemblers	3,350	3,900	16	540	740	1,280
Electrical, Electronic Assembler	50	40	-15	-10	10	0
Welders and Cutters	370	390	5	20	60	80
Cannery Workers	230	240	3	10	40	40
Meat, Poultry, Fish Cutters	530	580	10	50	130	180
Grinding and Polishing, Hand	100	120	27	30	40	60
TRANSP. & MAT. MOVING MACH. OPER.	7,730	8,120	5	390	1,740	2,150
Motor Vehicle Operators	5,580	6,020	8	440	1,300	1,740
Truck Drivers	3,850	4,080	6	230	830	1,060
Bus Drivers	130	160	25	30	40	80
Bus Drivers, School	1,130	1,280	14	150	340	500
Taxi Drivers and Chauffeurs	100	110	11	10	40	50
Driver/Sales Workers	340	350	2	10	40	50
Rail Transportation Workers	250	180	-29	-70	50	-10
Railroad Conductors, Yardmasters	60	40	-27	-20	20	10
Railroad Brake, Signal, Switch	100	70	-28	-30	10	-10
Material Moving Equipment Oper.	1,170	1,170	0	0	250	250
Excavation Loading Machine Oper.	120	130	7	10	20	30
Grader, Dozer, Scraper Operators	230	240	5	10	100	110
Industrial Truck & Tractor Oper.	340	310	-9	-30	40	10
Operating Engineers	260	270	5	10	40	60
Other Transp., Mat. Moving Opr	730	750	3	30	150	170
Service Station Attendants	510	520	2	10	110	120
HELPER, LABORER, MAT. MOVER, HAND	4,100	4,360	6	260	900	1,160
Construction Trades Helpers	360	380	4	10	80	90
Machine Feeders and Offbearers	290	370	26	80	50	130
Hand Freight, Stock, Mat. Movers	1,780	1,890	6	110	420	540
Refuse Collectors	90	100	4	0	30	40
Freight & Material Movers, Hand	700	720	3	20	150	170
Hand Packers and Packagers	770	840	10	70	210	280
Vehicle, Equipment Cleaners	220	230	8	20	40	60
Other Helper, Laborer, Mover	1,670	1,720	3	50	360	410

*Calculated using unrounded numbers

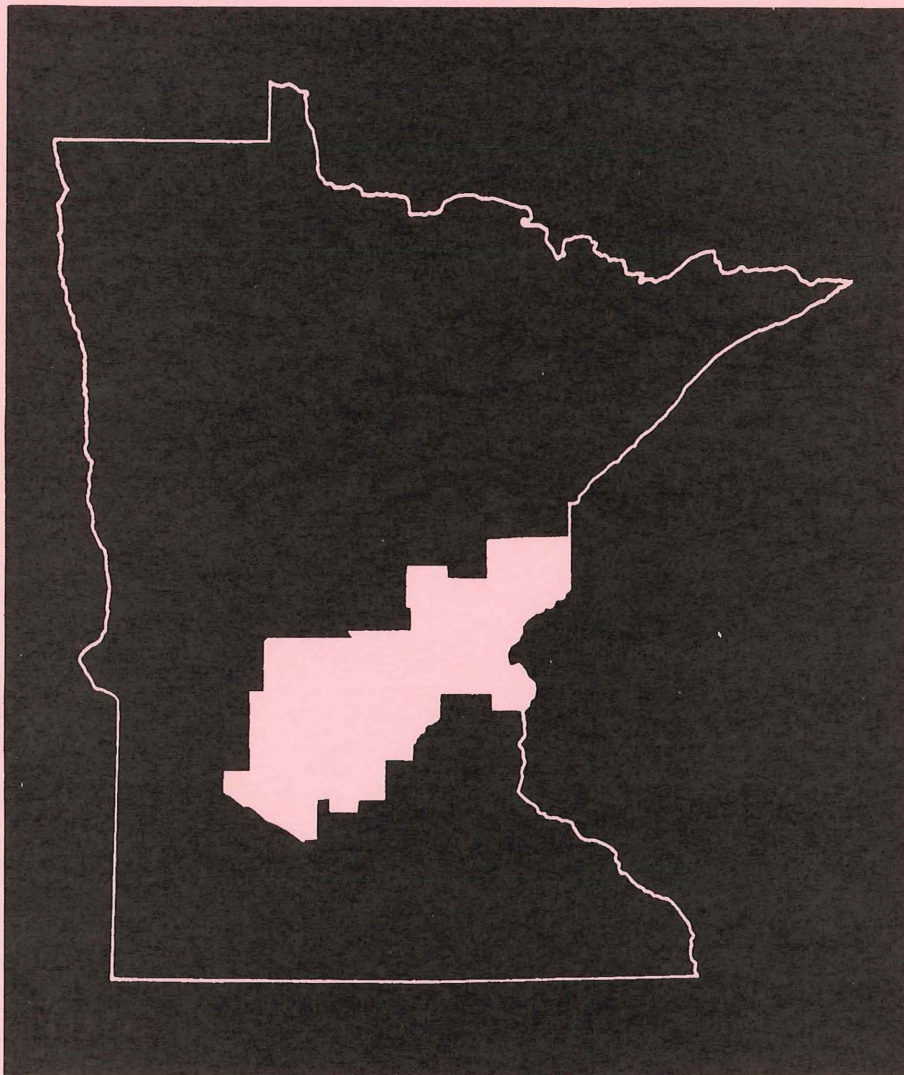
**Total Openings includes openings due to growth or decline (numeric change between 1993 and 1986 employment), plus openings from labor force separations (workers who retire, die, or leave the labor force for other reasons, such as disability or family responsibilities). This does not include openings that are the result of workers changing occupations or geographic location.

***Sales Supervisors, Sales Engineers, and Sales Representatives

NOTE: Those occupations which employed less than 50 people in 1986 have been left out of this table, as well as those "All Other" occupations which were on a detail level, such as "All Other Managers and Administrators".

Figure 17 (cont.)

Central Minnesota



Central Minnesota

This region encompasses 13 counties in the central part of the state, those in Economic Development Regions 6E, 7W, and 7E. It includes agricultural areas in west central Minnesota, the thriving St. Cloud Metropolitan Area, and farming areas near the Wisconsin border. The strong employment growth St. Cloud has experienced in recent years is expected to continue. In 1986, eight percent of all jobs in Minnesota were in the Central region, with the services industry accounting for one-quarter of these. Trade, manufacturing, and agriculture, forestry, & fishing are the next largest industries. (See Figure 18.)

Total employment in Central Minnesota is anticipated to grow by 13 percent, increasing from 180,680 in 1986 to 204,720 in 1993. This is faster than the expected growth in Greater Minnesota and statewide (7% and 11%, respectively). Services and trade are forecasted to grow fastest, the two of them accounting for two-thirds of the region's projected new jobs. (See Figure 19.) This area will experience substantial losses in agricultural employment, while most other industries will grow strongly. In fact, the projected employment growth rate for the total of all industries except agriculture, forestry, and fishing is higher in the Central region than in any other region in the state (16%, followed by the Twin Cities Area at 14%).

Agriculture, forestry, and fishing employment is expected to decline tremendously, by 2,190 jobs. Consolidation of farms, land development, and mechanization are reasons. Some growth is expected in agricultural services because of high demand for landscaping and horticultural services, which

includes lawn care.

Mining employment is anticipated to increase, but because of the relatively small number employed in this industry, the growth only translates to approximately 20 new jobs.

Construction jobs are projected to grow slightly faster than average for all employment in this area, and faster than in any other Minnesota region. Special trade contractors are forecasted to experience the fastest and most growth.

Manufacturing employment is anticipated to increase about average, with durable goods growing faster and adding nearly twice as many workers as nondurables. Electric and electronic equipment is projected to swell and account for close to half of the new durables jobs. Lumber & wood products and stone, clay, & glass products are other industries forecasted to grow fast and add significant numbers of workers. Of the nondurable industries, printing & publishing and miscellaneous plastics products are the industries expected to grow most.

Jobs in transportation are projected to grow about average while relatively slow growth is expected in communications and public utilities. Local and long distance trucking will add numerous jobs. School bus employment will also increase significantly. Railroad jobs are projected to decline substantially.

Trade employment is projected to continue to surge, especially in retail, which is forecasted to grow by 21 percent (significantly faster than in any other Minnesota region) and add 7,090 jobs. Eating and drinking places is expected to expand the most, followed by

Employment Distribution by Industry Group Central Minnesota 1986 and 1993

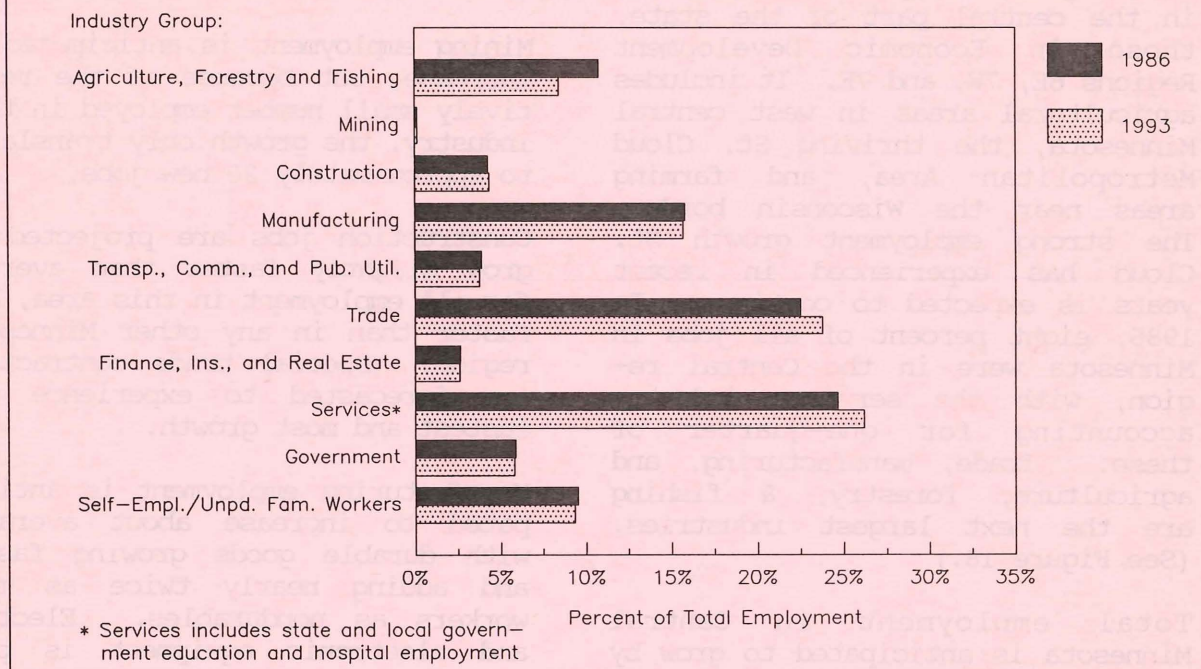


Figure 18

miscellaneous retail (especially nonstore retailers), grocery stores, and general merchandise stores. Wholesale trade is expected to grow about average, with the most jobs being added in groceries and related products.

No outstanding changes are expected in finance, insurance, and real estate. It is expected to create new jobs at an average rate. Banking and real estate are anticipated to add the most workers, even though banking is expected to grow relatively slowly. Employment growth in the banking industry is projected to stagnate all over the nation because of loan losses, automation, and heavy competition from other financial service industries.

Services is projected to grow the fastest and add the most new jobs of all the industry groups. Health services (except hospitals) and educational services are each

forecasted to add over 2,000 new jobs to this already largest industry group. In addition, social services, business services, and hotels & other lodging places will add fewer yet still very significant numbers of workers. The number of workers in hospitals, including state and local government hospitals, is projected to increase only slightly due to efforts to control health service costs.

Government employment is forecasted to grow slightly slower than average. The most new jobs will be generated by local government, excluding non-library educational services and hospitals.

Jobs for the nonagricultural self-employed and unpaid family workers are also projected to increase slightly slower than average.

From an occupational standpoint, the largest growth and the most total

Employment Distribution by Occupational Category Central Minnesota 1986 and 1993

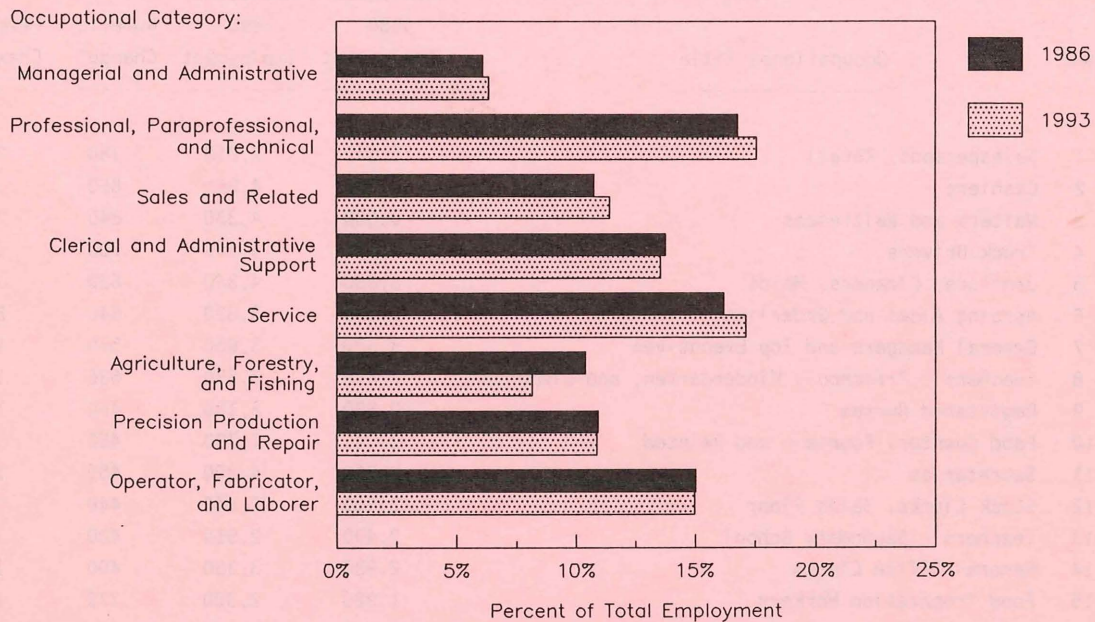


Figure 21

accounting clerks, teacher aides & educational assistants, and receptionists & information clerks. Typists and word processors are expected to decline.

Service occupations is the other fastest-growing category. All subcategories except private household occupations are projected to grow faster than average. Waiters and waitresses is the occupation expected to experience the most growth.

The number of jobs in the agriculture, forestry, and fishing occupational category is forecasted to decline substantially, especially for farmers and farm workers. Gardeners & groundskeepers, and farm managers are projected to experience small gains.

The number of precision production and repair workers is expected to increase about average. All sub-

categories are forecasted to expand by between 11 and 14 percent except plant & system occupations, with a nine percent growth rate. Carpenters and precision woodworkers are occupations expected to grow most.

Operators, fabricators, and laborers, the third largest category, is expected to grow about average for the area and significantly faster than in any other of the six Minnesota regions. Truck drivers should add by far the most jobs, followed by school bus drivers. Mirroring the industry growth, electromechanical equipment precision assemblers is projected to be the fastest-growing occupation in this or any category. It is forecasted to add 120 jobs.

In the Central region, 65,890 job openings are anticipated between 1986 and 1993, with 36 percent from growth and 64 percent from labor force separations.

**Occupations with Largest Projected Employment Growth
1986 - 1993
Central Minnesota**

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Salespersons, Retail	5,630	7,010	1,380	25%
2	Cashiers	4,050	4,900	850	21
3	Waiters and Waitresses	3,500	4,330	840	24
4	Truck Drivers	4,150	4,840	700	17
5	Janitors, Cleaners, Maids	3,660	4,340	690	19
6	Nursing Aides and Orderlies	3,190	3,830	640	20
7	General Managers and Top Executives	3,380	3,950	570	17
8	Teachers - Preschool, Kindergarten, and Elementary	2,810	3,330	530	19
9	Registered Nurses	2,680	3,130	460	17
10	Food Counter, Fountain and Related	2,340	2,790	450	19
11	Secretaries	3,850	4,300	450	12
12	Stock Clerks, Sales Floor	2,000	2,440	440	22
13	Teachers - Secondary School	2,490	2,910	420	17
14	General Office Clerks	2,930	3,330	400	14
15	Food Preparation Workers	1,920	2,300	370	19
16	Bookkeeping and Accounting Clerks	3,560	3,890	330	9
17	Blue Collar Worker Supervisors	2,390	2,690	300	13
18	Bus Drivers, School	1,270	1,560	290	23
19	Accountants and Auditors	1,270	1,540	270	21
20	Licensed Practical Nurses	1,310	1,570	260	20

Figure 22

**Occupations with Largest Projected Employment Decline
1986 - 1993
Central Minnesota**

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Farmers	10,540	9,080	-1,460	-14%
2	Farm Workers	5,770	4,940	-830	-14
3	Industrial Truck and Tractor Operators	440	400	-40	-9
4	Typists and Word Processors	1,120	1,080	-40	-3
5	Railroad Brake, Signal, Switch Operators	80	50	-20	-29
6	Optical Goods Workers	380	370	-20	-5
7	Sewing Machine Operators, Garment	160	140	-20	-10
8	Railroad Conductors, Yardmasters	50	30	-10	-28
9	Psychiatric Aides	220	210	-10	-4
10	Cannery Workers	540	530	-10	-2
10	Dairy Processing Equipment Operators	210	200	-10	-4

*Calculated using unrounded numbers

Figure 23

Employment Projections by Industry, 1986 - 1993 Central Minnesota

Industry	1986 Estimated Employment	1993 Projected Employment	Numeric Change*	Percent Change*	Percent of Projected 1993 State Industry Employment
TOTAL, ALL INDUSTRIES	180,680	204,720	24,040	13%	9%
Agriculture, Forestry, and Fishing, including Self-Employed/Unpaid Family Workers	19,410	17,220	-2,190	-11	19
Mining	250	270	20	9	4
Construction	7,740	8,900	1,160	15	11
Manufacturing, Total	28,500	32,050	3,550	12	8
Durable Goods Manufacturing	14,960	17,310	2,350	16	7
Nondurable Goods Manufacturing	13,540	14,740	1,190	9	9
Transportation, Communication, and Public Utilities	7,000	7,740	740	11	7
Transportation	4,080	4,610	530	13	7
Communication and Public Utilities	2,920	3,130	210	7	9
Trade, Total	40,600	48,630	8,030	20	9
Wholesale Trade	6,960	7,900	940	13	6
Retail Trade	33,640	40,730	7,090	21	10
Finance, Insurance and Real Estate	4,770	5,350	580	12	4
Services, Total	44,590	53,600	9,010	20	8
Health Services, including State and Local Government Hospitals	14,410	17,050	2,640	18	9
Educational Services, including Non-library State and Local Government Educational Services	14,140	16,510	2,370	17	11
Other Services, including Private Household Workers	16,040	20,040	4,000	25	6
Government, Total	10,640	11,860	1,210	11	8
Federal Government, including Postal Service	2,290	2,590	290	13	7
State Government, except Non- library Educational Services and Hospitals	1,390	1,520	130	10	5
Local Government, except Non- library Educational Services and Hospitals	6,960	7,750	780	11	9
Self-Employed/Unpaid Family Workers - Nonagricultural	17,180	19,100	1,930	11	11

*Calculated using unrounded numbers

Figure 19

Projected Job Openings by Occupational Category Central Minnesota 1986 - 1993

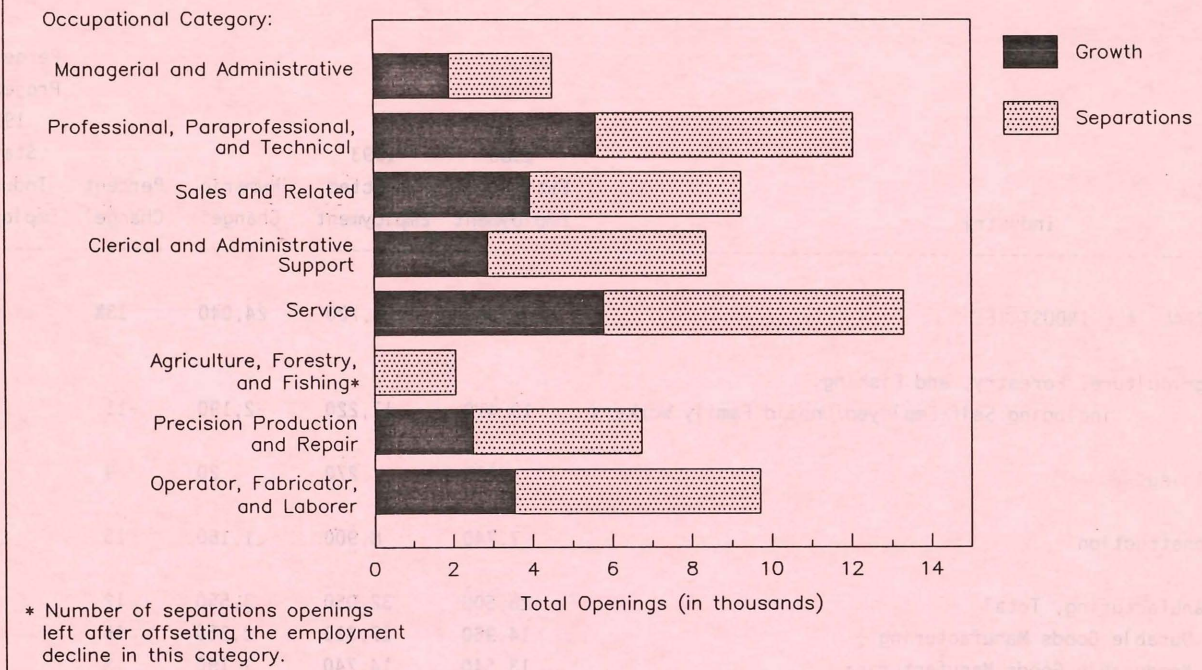


Figure 20

openings are expected in the service occupational category, followed by the professional, paraprofessional, & technical category. (See Figure 20.) These two, plus the sales & related and managerial & administrative categories, are projected to grow faster than average and to employ larger shares of workers in 1993 than 1986. (See Figures 3, 21 and 24.)

Retail salespersons is the occupation anticipated to add the most workers; farmers is forecasted to decline the most. (See Figures 22 and 23.) Reflecting the projected industry growth, nursing- and education-related workers should be in high demand in the upcoming years, each appearing three times in the list of most-growth occupations.

In the managerial and administrative occupations category, general managers & top executives is projected to add the most workers;

food service and lodging managers is projected to grow the fastest.

In the professional, paraprofessional, and technical category, computer and related occupations is projected to be the fastest-growing subcategory. It is projected to add 270 jobs. The most growth is expected in the health practitioners & technicians and teachers, librarians, & counselors subcategories.

Sales and related occupations is projected to be one of the two fastest-growing occupational categories. All occupations in this category are expected to grow faster than average, with retail and related occupations accounting for two-thirds of the employment growth.

Clerical and administrative support is anticipated to grow about average for the area. The most jobs will be generated for secretaries, general office clerks, bookkeeping &

Employment Projections by Specific Occupation 1986 - 1993 Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
TOTAL, ALL OCCUPATIONS	180,680	204,710	13%	24,040	41,900	65,890
MANAGERIAL AND ADMINISTRATIVE OCC.	11,040	12,970	17	1,930	2,580	4,490
Financial Managers	920	1,070	16	150	170	320
Personnel, Training, Labor Rel. Mgr	210	240	11	20	40	60
Purchasing Managers	410	460	14	60	40	100
Marketing, Adv., Public Rel. Mgrs	620	720	16	100	110	210
Postmasters, Mail Superintendent	90	100	9	10	60	60
Education Administrators	390	450	16	60	80	140
Property, Real Estate Management	100	110	14	10	50	60
Food Service & Lodging Managers	710	870	23	160	190	350
Public Admin., Leg., Gen. Admin.	140	150	10	10	40	60
General Managers and Top Exec.	3,380	3,950	17	570	880	1,440
PROFESSIONAL, PARAPROFESS.,TECH.	30,340	35,960	19	5,610	6,470	12,030
MANAGEMENT SUPPORT OCCUPATIONS	3,820	4,450	17	630	760	1,390
Financial Specialists	1,420	1,710	20	290	270	560
Loan Officers and Counselors	110	130	11	10	20	40
Accountants and Auditors	1,270	1,540	21	270	250	520
Purchasing Agents and Buyers	560	610	10	60	90	150
Wholesale, Retail Buyers, Ex. Farm	360	400	10	40	60	90
Purchasing Agent Ex. Who/Ret/Farm	190	210	11	20	40	60
Personnel Specialists & Related	260	270	7	20	40	60
Personnel, Train., Labor Rel. Spec	220	230	5	10	40	50
Other Management Support Occ.	1,580	1,850	17	270	350	620
Cost Estimators	260	310	17	50	30	80
Management Analysts	70	80	16	10	20	40
Construction, Building Inspector	60	60	5	0	30	30
Compliance & Enforce. Inspectors	120	130	13	20	30	40
Tax Examiner, Collector, Rev. Agent	60	70	17	10	10	20
ENGINEERS, ARCHITECTS, SURVEYORS	2,220	2,710	22	490	410	900
Engineers	1,040	1,300	25	260	180	440
Civil Engineers, Incl. Traffic	140	150	11	20	30	40
Electrical & Electronic Engineer	270	360	36	100	30	130
Industrial Engineers, Exc. Safety	100	130	27	30	20	50
Mechanical Engineers	220	280	26	60	40	90
Architects	110	130	18	20	20	40
Architects, Exc. Land. & Marine	90	100	17	20	10	30
Surveying and Mapping Scientists	70	80	15	10	10	30
Engineering Technicians	1,000	1,200	20	200	190	390
Electrical & Electronic Techns.	220	300	36	80	10	90
Drafters	420	460	10	40	90	130
NATURAL SCIENTISTS	600	660	10	60	120	180
Physical Scientists	150	160	8	10	20	30
Chemists, Except Biochemists	90	90	7	10	10	20
Life Scientists	210	240	13	30	40	70
Forester, Conservation Scientist	60	60	11	10	10	10
Agricultural and Food Scientists	60	70	14	10	20	30
Biological Scientists	50	50	13	10	10	10
Physical & Life Sci. Technicians	240	260	9	20	60	80
COMPUTER AND MATHEMATICAL OCC.	860	1,130	31	270	130	410
Computer and Related Occupations	810	1,080	33	270	130	410
Computer Systems Analysts, EDP	340	460	35	120	20	140
Computer Programmers & Aides	460	610	31	140	110	260
SOCIAL SCIENTISTS, RECR., RELIGION	1,920	2,300	20	380	550	920

Figure 24

Employment Projections by Specific Occupation
1986 - 1993
Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Social Scientists	230	280	21	50	40	80
Psychologists	150	190	23	40	30	60
Social, Recreation, Religion Occ	1,690	2,020	19	330	520	850
Social Service Technicians	230	290	28	60	40	110
Social Workers	780	960	24	180	180	360
Recreation Workers	260	310	20	50	80	130
Clergy	290	320	9	30	150	180
Directors, Religious Activ./Educ.	140	140	3	0	60	70
LAW AND RELATED OCCUPATIONS	1,000	1,180	17	170	320	490
Lawyers and Judges	830	960	16	130	280	410
Lawyers	800	930	16	130	270	400
Legal Assistants and Technicians	170	210	26	40	40	80
Title Examiners and Clerks	60	70	27	20	10	30
TEACHERS, LIBRARIANS, COUNSELORS	8,810	10,350	18	1,550	1,890	3,430
College and University Faculty	530	600	14	80	120	200
Teachers and Instructors	7,750	9,130	18	1,380	1,640	3,010
Teachers, Preschool, Kinder, Elem.	2,810	3,330	19	530	640	1,160
Teachers, Secondary School	2,490	2,910	17	420	390	810
Teachers, Vocational Education	380	490	28	110	130	230
Instructors, Nonvocational Educ.	310	360	14	50	90	130
Librarians, Archivists, Curators	530	620	17	90	130	220
Librarians, Professional	270	310	16	40	80	120
Technical Assistants, Library	90	110	14	10	30	40
Vocational & Educ. Counselors	160	200	22	40	20	60
HEALTH PRACTITIONERS, TECHNICIANS	7,840	9,410	20	1,570	1,600	3,150
Health Treating Practitioners	1,190	1,450	21	260	480	740
Physicians and Surgeons	620	760	23	140	250	390
Dentists	380	450	20	80	170	250
Optometrists	60	70	28	20	30	40
Veterinarians, Vet. Inspectors	130	150	15	20	30	50
Therapists	520	640	23	120	60	170
Respiratory Therapists	50	60	16	10	0	10
Occupational Therapists	90	110	28	20	10	30
Physical Therapists	120	170	37	50	10	60
Speech Pathologists, Audiologists	100	120	19	20	10	40
Recreation Therapists	100	120	17	20	10	20
Health Care Maintenance, Treating	4,680	5,520	18	830	760	1,590
Registered Nurses	2,680	3,130	17	460	430	890
Licensed Practical Nurses	1,310	1,570	20	260	170	430
Emergency Medical Technicians	130	140	13	20	10	30
Physician Assistants	80	100	28	20	10	30
Opticians, Dispensing & Measur.	120	150	25	30	40	60
Pharmacists	270	310	15	40	80	120
Dietitians and Nutritionists	80	80	11	10	20	30
Med. Technicians & Technologists	970	1,190	24	230	190	410
Dental Hygienists	180	250	40	70	10	80
Med. & Clinic Lab Tech. & Techno	420	490	16	70	100	170
Medical Records Techn. & Technol.	90	130	34	30	30	60
Radiologic Technol. & Technician	170	210	26	40	40	80
Surgical Technicians	70	80	12	10	10	10
Other Health Prof., Para, Tech	480	610	27	130	110	250
WRITER, ARTIST, ENTER., ATHLETE	1,640	1,900	16	260	330	570
Writers, Editors, Incl Technical	230	270	17	40	50	80
Public Relations Specialists	110	130	15	20	30	40
Radio & TV Accounser & Newscast.	80	90	21	20	10	30
Reporters and Correspondents	90	110	19	20	30	40
Photographers	100	120	21	20	20	40
Camera Operators, TV & Movies	60	70	12	10	10	20
Designers	360	420	19	70	80	150

Figure 24 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Artists and Related Workers	320	380	16	50	50	110
Musicians	200	220	8	20	40	60
OTHER PROF., PARAPROF., TECHN.	1,640	1,870	14	240	360	600
SALES AND RELATED OCCUPATIONS	19,480	23,420	20	3,930	5,310	9,240
SALES OCCUPATIONS, SERVICES	1,440	1,670	16	230	510	740
Insurance Sales Workers	590	670	14	80	190	270
Brokers, Real Estate	60	70	14	10	20	30
Sales Agents, Real Estate	520	600	16	80	210	290
Securities, Financial Serv. Sales	100	130	23	20	30	50
Travel Agents	140	170	23	30	50	80
SALES OCC., RETAIL AND RELATED	11,860	14,550	23	2,700	3,400	6,100
Salespersons, Retail	5,630	7,010	25	1,380	1,950	3,330
Counter and Rental Clerks	180	210	18	30	50	80
Stock Clerks, Sales Floor	2,000	2,440	22	440	670	1,110
Cashiers	4,050	4,900	21	850	740	1,580
OTHER SALES & RELATED OCC.***	6,190	7,200	16	1,010	1,390	2,400
CLERICAL & ADMIN. SUPPORT OCC.	24,860	27,730	12	2,870	5,480	8,350
FIRST LINE SUPERVISORS, CLERICAL	1,220	1,400	15	180	240	420
INDUSTRY SPECIFIC SUPPORT OCC.	3,910	4,480	15	570	710	1,270
Banking, Security, Finance, Credit	1,470	1,580	8	110	180	300
Tellers	740	770	4	30	60	80
New Accounts Clerks	150	160	7	10	30	40
Loan and Credit Clerks	210	230	9	20	40	60
Adjustment Clerks	220	260	18	40	40	80
Statement Clerks	70	80	11	10	10	20
Records Processing Occ. Exc Finan	2,450	2,900	19	460	530	970
Insurance Policy Process. Clerks	80	80	2	0	10	10
Welfare Eligibility Workers	170	190	12	20	10	40
Bill and Account Collectors	230	290	29	70	60	120
Court Clerks	60	70	17	10	10	10
Municipal Clerks	70	70	11	10	10	20
Hotel Desk Clerks	100	140	38	40	40	70
Library Assistants & Bookmobile	260	300	17	40	50	90
Teacher Aides & Educ. Assistants	1,310	1,560	19	250	300	550
SECRETARIES	3,850	4,300	12	450	850	1,300
GENERAL OFFICE OCCUPATIONS	10,360	11,400	10	1,050	2,620	3,680
Stenographers	170	180	5	10	50	60
Receptionists, Information Clerks	890	1,100	23	210	220	430
Typists and Word Processors	1,120	1,080	-3	-40	230	200
Personnel Clerks, Except Payroll	100	110	8	10	20	30
File Clerks	200	210	6	10	40	60
Order Clerks: Materials, Service	430	490	14	60	80	150
Statistical Clerks	60	60	-2	0	10	10
Interviewing Clerks, Ex. Personnel	120	150	20	20	30	50
Customer Service Reps, Utilities	70	80	9	10	10	20
Bookkeeping & Accounting Clerks	3,560	3,890	9	330	970	1,300
Payroll and Timekeeping Clerks	260	280	7	20	60	70
Billing, Cost and Rate Clerks	420	430	5	20	70	90
General Office Clerks	2,930	3,330	14	400	810	1,210
DATA PROCESSING, OFFICE MACHINES	1,070	1,180	10	110	90	210

Figure 24 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Bill., Post, Calculating Mach.Op	160	170	7	10	10	30
Computer Operators, Exc. Periph.	290	340	17	50	10	60
Data Entry Keyers, Ex. Composing	390	390	-1	0	20	20
Dupl., Mail, & Other Office Equ.	190	230	21	40	40	80
COMMUNICATIONS EQUIP. OPERATORS	380	420	11	40	100	140
Switchboard Operators	290	330	14	40	80	120
Central Office Operators	80	80	4	0	20	20
MAIL & MESSAGE DISTRIB. WORKER	480	520	8	40	140	180
Mail Clerks, Exc. Mail Machine	160	170	8	10	40	60
Postal Mail Carriers	250	270	9	20	70	90
Messengers	50	50	0	0	20	20
MATERIAL RECORD., SCHED., DISTRIB	2,970	3,310	12	350	600	940
Dispatcher:Police, Fire, Ambulance	70	80	11	10	10	20
Dispatchers: Exc. Pol., Fire, Amb.	160	180	14	20	40	60
Production, Expediting Clerks	190	220	15	30	40	60
Meter Readers, Utilities	100	100	-1	0	20	20
Weighers, Measurers, Checkers	80	90	17	10	20	40
Stock Clerks:Stockroom Or Wareh.	830	900	9	70	170	240
Order Fillers, Sales	460	520	14	70	100	160
Traffic, Shipping, & Rec. Clerks	860	960	12	100	160	260
OTHER CLERICAL & ADM.SUPPORT	620	720	15	90	140	230
SERVICE OCCUPATIONS	29,270	35,050	20	5,780	7,500	13,290
FIRST LINE SUPERVISORS, SERVICE	310	370	18	60	230	290
Police and Detective Supervisors	130	150	13	20	20	40
Housekeepers, Institutional	160	190	22	30	200	240
PRIVATE HOUSEHOLD OCCUPATIONS	1,000	1,090	9	90	590	690
Housekeepers and Butlers	120	130	9	10	30	40
Child Care Wkrs., Pvt. Household	490	530	9	50	110	150
Cleaners & Servants, Pvt. House.	370	400	10	40	450	480
PROTECTIVE SERVICE OCCUPATIONS	1,480	1,720	16	240	340	580
Fire Fighters	180	200	12	20	20	40
Police Patrol Officers	390	440	13	50	40	80
Correction Officers and Jailers	180	220	23	40	20	60
Guards and Watch Guards	330	390	20	70	170	240
FOOD AND BEVERAGE OCCUPATIONS	13,590	16,510	21	2,910	3,250	6,160
Hosts & Hostesses: Rest., Lounge	400	490	24	100	120	220
Bartenders	810	950	18	150	200	340
Waiters and Waitresses	3,500	4,330	24	840	460	1,290
Dining Room & Bartender Helpers	740	930	25	190	80	270
Bakers, Bread and Pastry	490	640	30	150	180	320
Cooks, Restaurant	1,020	1,280	25	250	360	610
Cooks, Institution or Cafeteria	860	1,010	17	150	290	440
Cooks, Fast Food and Short Order	1,120	1,330	19	210	250	460
Food Preparation Workers	1,920	2,300	19	370	690	1,060
Food Counter, Fountain & Related	2,340	2,790	19	450	530	980
HEALTH SERVICE OCCUPATIONS	4,540	5,480	21	940	1,130	2,080
Dental Assistants	310	420	37	120	40	150
Medical Assistants	120	160	37	40	30	70
Nursing Aides and Orderlies	3,190	3,830	20	640	770	1,410
Home Health Aides	230	290	25	60	100	150
Psychiatric Aides	220	210	-4	-10	50	40
Physical, Correct. Therapy Assist	120	170	38	50	30	80

Figure 24 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Occupational Therapy Assistants	60	80	27	20	10	30
Pharmacy Assistants	110	120	11	10	30	40
CLEANING & BUILDING SERVICE OCC.	4,080	4,830	18	750	920	1,670
Janitors, Cleaners, Maids	3,660	4,340	19	690	830	1,520
PERSONAL SERVICE OCCUPATIONS	3,280	3,850	18	580	810	1,380
Barbers	240	270	12	30	130	160
Hairdressers and Cosmetologists	1,180	1,410	20	230	270	500
Amusement & Recreation Attendant	370	400	10	40	70	110
Social Welfare Service Aides	110	140	26	30	50	80
Child Care Workers	1,320	1,570	19	250	280	530
OTHER SERVICE WORKERS	1,000	1,210	22	220	230	450
AGRICULTURE, FORESTRY, FISHING	18,790	16,660	-11	-2,130	4,190	2,060
FARM OPERATORS AND MANAGERS	11,570	10,180	-12	-1,380	2,620	1,230
Farmers	10,540	9,080	-14	-1,460	2,040	590
Farm Managers	1,030	1,100	7	70	570	640
SUPERVISORS, FARM, FOREST, AG.REL	140	140	1	0	30	30
FORESTRY AND LOGGING OCCUPATIONS	170	160	-9	-20	40	20
Fallers and Buckers	60	50	-13	-10	10	10
Log Handling Equipment Operators	70	70	-11	-10	10	10
FARM WORKERS	5,770	4,940	-14	-830	1,110	290
OTHER AGRIC., FOREST, FISH.	1,130	1,240	9	100	390	490
Forest and Conservation Workers	70	80	6	0	10	20
Nursery Workers	60	60	5	0	30	30
Gardeners and Groundskeepers	550	630	15	80	250	330
Animal Caretakers, Except Farm	130	140	4	10	30	40
PRECISION PRODUCTION AND REPAIR	19,750	22,260	13	2,510	4,230	6,710
BLUE COLLAR WORKER SUPERVISORS	2,390	2,690	13	300	530	830
MECHANICS, INSTALLERS, REPAIRERS	6,410	7,130	11	720	1,300	2,020
Industrial Machinery Mechanics	470	530	12	60	110	160
Millwrights	150	190	23	40	30	60
Maintenance Repairers, Gen.Util.	1,140	1,320	15	180	260	430
Vehicle & Mobile Equip. Mechanic	2,590	2,810	8	220	430	660
Automotive Mechanics	1,330	1,440	8	110	220	340
Automotive Body, Related Repairer	380	410	7	30	50	80
Bus, Truck, Diesel Eng. Mechanic	420	480	16	70	60	130
Mobile Heavy Equipment Mechanics	170	190	11	20	40	60
Farm Equipment Mechanics	140	150	3	0	40	40
Small Engine Specialists	70	70	8	10	10	20
Communications Equip. Mechanics	200	200	-1	0	40	40
Central Office & PBX Instal/Rpr.	150	140	-1	0	40	40
Electrical & Electronic Eq. Mech.	780	880	12	90	120	210
Telephone & Cable TV Instal/Rpr.	170	180	6	10	10	10
Home Entertainment Eq. Repairers	90	100	18	20	20	40
Home Appli. & Power Tool Repairer	190	210	11	20	40	60
Electrical Powerline Instal/Rpr.	230	250	9	20	40	60
Other Mechanics, Installers, Rep	1,070	1,220	13	140	310	450
Heating, A/C, Refrig. Mechanics	250	290	16	40	50	90
Precision Instrument Repairers	50	50	8	0	40	50
Office Machine, Register Servicicer	80	90	12	10	10	20

Figure 24 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Coin & Vending Machine Servicers	90	110	24	20	20	40
Tire Repairers and Changers	90	100	4	0	20	30
CONSTRUCTION TRADES, EXTRACTIVE	6,080	6,900	14	820	1,290	2,100
Construction Workers	5,980	6,780	13	800	1,270	2,070
Carpenters	2,130	2,370	11	230	470	700
Drywall Installers & Finishers	200	240	19	40	50	80
Electricians	680	760	13	90	130	220
Bricklayers and Stone Masons	290	340	18	50	60	110
Concrete and Terrazzo Finishers	180	220	19	40	20	60
Struct. & Reinforce. Metal Worker	140	180	24	30	40	70
Painters and Paperhangers	500	570	13	60	150	210
Plumber, Pipefitter, Steamfitter	540	620	15	80	140	220
Pipelayers & Pipelaying Fitters	70	80	14	10	10	20
Carpet Installers	150	180	20	30	10	40
Paving, Surfacing, Tamping	90	110	14	10	0	10
Highway Maintenance Workers	320	360	12	40	60	100
Insulation Workers	100	120	21	20	10	40
Roofers	130	160	18	20	10	30
Glaziers	50	60	17	10	10	10
Extractive and Blasting Workers	100	120	16	20	20	40
PRECISION PRODUCTION OCCUPATIONS	4,350	4,970	14	620	1,000	1,620
Precision Metal Workers	1,440	1,640	14	200	280	480
Tool and Die Makers	210	260	22	50	50	100
Machinists	540	600	11	60	100	150
Sheet Metal Workers	540	620	15	80	100	180
Precision Woodworkers	560	730	30	170	130	300
Precision Textile, Apparel, Furn	360	400	11	40	190	230
Custom Tailors and Sewers	150	170	12	20	110	130
Upholsterers	140	160	14	20	60	80
Precision Printing Workers	180	230	24	40	30	70
Job Printers	60	70	24	10	10	20
Precision Lithographers & Photo.	70	100	32	20	10	40
Precision Food Workers	1,020	1,120	10	100	240	340
Butchers and Meatcutters	810	900	11	90	180	270
Bakers, Manufacturing	110	120	7	10	40	40
Other Precision Workers	790	850	9	70	130	200
Optical Goods Workers	380	370	-5	-20	50	30
Dental Laboratory Technicians	130	150	19	20	20	40
PLANT & SYSTEM OCCUPATIONS	520	570	9	50	110	150
Water & Waste Treat. Plant Oper.	140	150	12	20	30	40
Stationary Engineers	90	100	3	0	30	30
Power & Reactor Plant Operators	100	110	10	10	20	30
OPERATOR, FABRICATOR AND LABORER	27,140	30,670	13	3,530	6,150	9,710
INSPECTORS & RELATED OCCUPATIONS	670	780	16	110	150	270
MACH.SET.,SET-UP OP.,OPER.& TEND	6,770	7,630	13	860	1,540	2,420
Metal & Plas. Mach. Set/Ops/Tend	2,360	2,740	16	380	460	830
Lathe,Turning Mach.Setter/Op,M/P	100	110	13	10	10	30
Drilling,Boring Mach.Set/Op.,M/P	70	70	7	10	10	20
Grinding,Buffering Mach.Set/Op.M/P	100	110	11	10	20	40
Machine Tool Cutting Oper., M/P	100	120	13	10	10	30
Punching Mach. Setter/Oper., M/P	130	140	12	20	20	40
Machine Forming Operators, M/P	260	270	5	10	40	50
Numerical Control Mach.Tool, M/P	170	210	22	40	10	50
Combin. Mach.Tool Set/Oper. M/P	200	240	19	40	50	80
Structural Metal Fabricators	60	70	15	10	10	20
Welding Machine Set/Ops/Tenders	160	180	10	20	40	50

Figure 24 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Electrolytic Plating Mach.Operators.	80	90	17	10	10	30
Plastic Molding, Casting Oper.	500	640	27	140	120	260
Woodworking Machine Setters, Op.	220	260	21	50	50	90
Head Sawyers & Saw Mach.Opr/Tend	120	150	23	30	30	60
Woodworking Machine Operators	100	110	18	20	20	40
Printing, Binding, & Related Occ	650	790	23	150	130	290
Offset Lithographic Press Setter	60	90	34	20	10	30
Letterpress Setter/Operator	50	50	13	10	10	10
Screen Printing Mach. Setter/Op.	50	60	26	10	10	30
Bindery Mach. Operators/Set/Tend	130	170	30	40	30	70
Typesetting Mach. Operator/Tend.	60	60	11	10	10	10
Printing Press Mach.Ops/Set/Tend	200	240	20	40	50	90
Textile Mach.Operators & Related	700	730	5	40	260	290
Text.Drawout & Wind.Mach.Ops/Set	50	50	2	0	10	10
Sewing Mach. Operator, Garment	160	140	-10	-20	60	40
Sewing Mach. Oper., Non-Garment	120	120	3	0	40	50
Laundry, Drycleaning Mach. Oper.	300	340	13	40	130	180
Pressing Mach.Operator, Textiles	60	60	3	0	20	20
Other Mach. Set,Operators,Tender	2,850	3,110	9	260	640	900
Cooking Machine Oper., Food/Tob.	80	80	-1	0	10	10
Furnace, Kiln, Oven, Kettle Oper.	70	70	7	10	20	30
Low Pressure Boiler Operator	50	50	0	0	10	10
Dairy Processing Equip. Operator	210	200	-4	-10	40	30
Cutting & Slicing Mach. Set/Ops	280	320	15	40	60	110
Painting Machine Operators	190	210	11	20	40	60
Crushing & Mixing Machine Oper.	410	410	2	10	60	70
Extruding & Forming Mach.Set/Ops	170	190	9	20	40	50
Packaging & Filling Machine Oper.	640	740	14	90	200	290
HAND WORKING OCC., INC. ASSEMBLER	5,710	6,450	13	740	1,200	1,950
Precision Assemblers	610	800	31	190	110	300
Electromech. Eq. Assembler -Prec	290	420	42	120	60	180
Electric.,Electronic Assembler-Prec	180	240	34	60	20	80
Other Hand Workers & Assemblers	5,100	5,660	11	560	1,100	1,650
Electrical, Electronic Assembler	330	340	2	10	60	60
Welders and Cutters	500	540	8	40	80	120
Cutters and Trimmers, Hand	150	190	24	40	40	80
Cannery Workers	540	530	-2	-10	80	70
Meat, Poultry, Fish Cutters	690	730	6	40	170	210
Painting and Coating, Hand	50	50	9	0	10	20
Grinding and Polishing, Hand	180	210	16	30	60	90
TRANSP. & MAT. MOVING MACH.OPER.	8,510	9,660	13	1,150	1,990	3,150
Motor Vehicle Operators	6,210	7,300	18	1,090	1,500	2,600
Truck Drivers	4,150	4,840	17	700	940	1,640
Bus Drivers	120	150	31	40	40	80
Bus Drivers, School	1,270	1,560	23	290	410	700
Taxi Drivers and Chauffeurs	80	90	15	10	40	50
Driver/Sales Workers	550	600	8	50	70	120
Rail Transportation Workers	200	140	-29	-60	40	-20
Railroad Conductors, Yardmasters	50	30	-28	-10	10	0
Railroad Brake, Signal, Switch	80	50	-29	-20	10	-10
Material Moving Equipment Oper.	1,460	1,540	5	80	320	400
Excavation Loading Machine Oper.	180	210	14	30	40	60
Grader, Dozer, Scraper Operators	320	360	12	40	140	180
Crane and Tower Operators	70	70	11	10	10	10
Industrial Truck & Tractor Oper.	440	400	-9	-40	50	10
Operating Engineers	270	300	12	30	50	80
Other Transp., Mat.Moving Opr	650	680	6	40	140	180
Service Station Attendants	460	490	6	30	100	130
HELPER, LABORER, MAT.MOVER, HAND	5,480	6,140	12	660	1,260	1,930
Construction Trades Helpers	580	660	13	70	130	200

Figure 24 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Central Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings**
Machine Feeders and Offbearers	230	280	19	40	40	80
Hand Freight, Stock, Mat. Movers	2,570	2,880	12	310	640	950
Refuse Collectors	110	120	13	10	40	50
Freight & Material Movers, Hand	980	1,070	10	100	210	310
Hand Packers and Packagers	1,240	1,420	14	180	350	530
Vehicle, Equipment Cleaners	240	270	9	20	40	60
Other Helper, Laborer, Mover	2,100	2,330	11	230	460	690

*Calculated using unrounded numbers

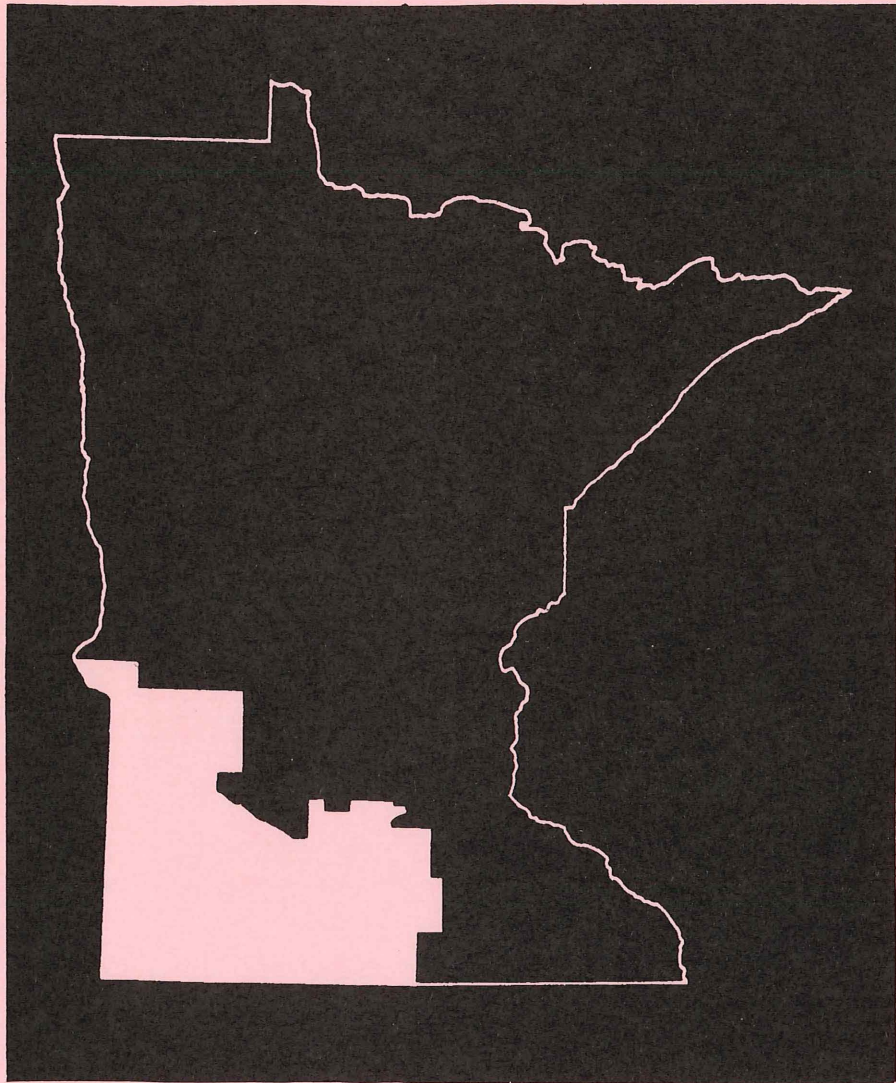
**Total Openings includes openings due to growth or decline (numeric change between 1993 and 1986 employment), plus openings from labor force separations (workers who retire, die, or leave the labor force for other reasons, such as disability or family responsibilities). This does not include openings that are the result of workers changing occupations or geographic location.

***Sales Supervisors, Sales Engineers, and Sales Representatives

NOTE: Those occupations which employed less than 50 people in 1986 have been left out of this table, as well as those "All Other" occupations which were on a detail level, such as "All Other Managers and Administrators".

Figure 24 (cont.)

Southwest Minnesota



Southwest Minnesota

This region contains 23 counties in the southwestern part of the state, those in Economic Development Regions 6W, 8, and 9. Eight percent of all jobs in Minnesota were located here in 1986. The Southwest region is largely rural and highly dependent on agriculture. Population out-migration has been occurring in the rural areas, with consolidation of farms and the declining number of small-town businesses. Larger cities and towns serve as local centers for services industries, trade, and manufacturing. The services industry accounts for almost one-quarter of the jobs in this region. Trade is the next largest industry, followed by manufacturing and agriculture, forestry & fishing. (See Figure 25.)

Total employment in Southwest Minnesota is projected to increase from 171,810 in 1986 to 176,790 in 1993, a three percent increase, which is the slowest of the six Minnesota regions. (See Figure 26.) The projected growth rates for the state and Greater Minnesota are 11% and 7%, respectively. Agricultural employment is expected to decline precipitously. Wholesale trade employment is also forecasted to drop significantly. Other industries are expected to grow strongly. Manufacturing employment is projected to grow faster in this region than statewide, and to expand by more than 2,500 jobs. The services industry is anticipated to generate the most new positions.

Agriculture, forestry, and fishing employment is projected to decline substantially, largely because of consolidation of farms and technological improvements in farming. Agricultural services, a relatively small industry which includes landscaping and horticultural services like lawn care, is expected

to grow fast and add slightly over 100 workers.

The number of mining jobs is projected to remain about the same.

The Southwest region is the only region where a decline is expected in construction (a drop of 1% or 50 jobs). Statewide, the projected growth rate in construction is 11 percent. In the Southeast region, it is two percent.

Manufacturing is projected to be the fastest-growing industry group in this region, and should generate significant numbers of jobs in the durable and nondurable goods sectors alike. Most of the growth is expected in electrical & electronic equipment and printing & publishing. Nonelectrical machinery; transportation equipment; and stone, clay, & glass products are also anticipated to each add at least 100 workers. Employment in instruments and related products, which includes photographic equipment and supplies, is projected to drop significantly.

Jobs in transportation, communication, and public utilities are anticipated to grow faster than average, with almost all of the growth coming from transportation, particularly trucking and school buses. Railroad jobs are forecasted to decline substantially. Little change is expected in communication and public utilities employment.

Miniscule growth is expected in trade. Wholesale trade is projected to lose 300 jobs, mostly in machinery, equipment, & supplies, farm product raw materials, and motor vehicles & automotive equipment. Employment in groceries and related products is anticipated to rise somewhat. Retail trade is projected

Employment Distribution by Industry Group Southwest Minnesota 1986 - 1993

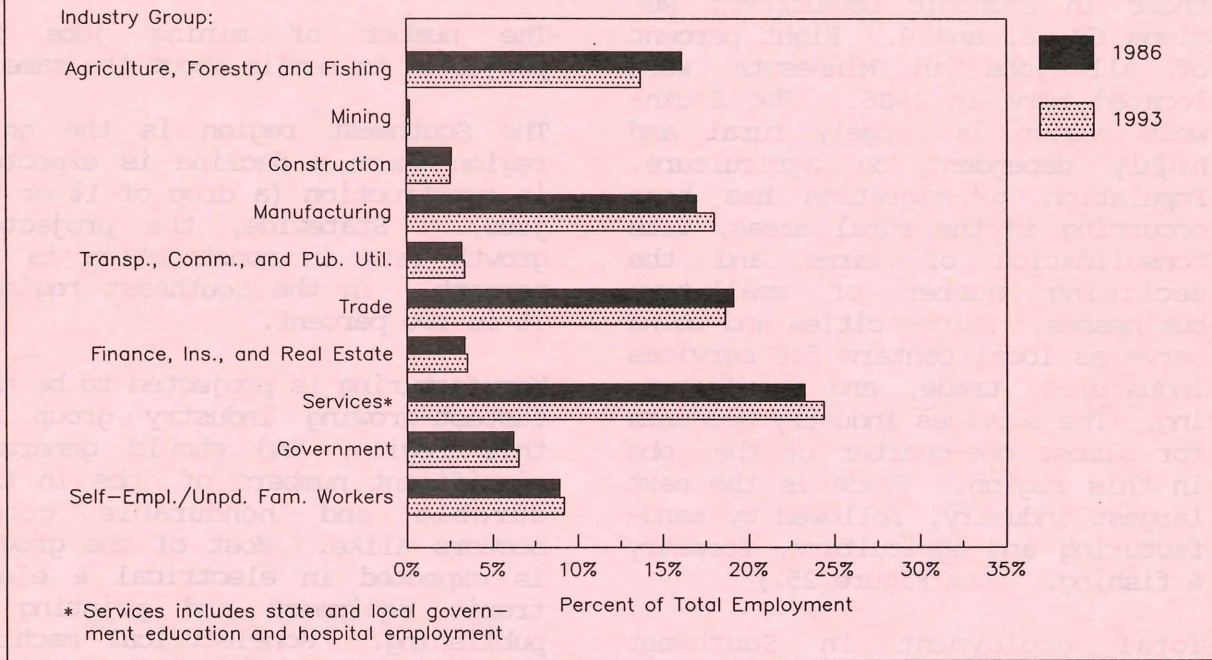


Figure 25

to add 390 jobs, an increase of only two percent. Grocery and general merchandise stores are expected to gain while automotive dealers & gasoline service stations, and furniture & home furnishings stores are projected to lose workers.

Job growth in finance, insurance, and real estate is forecasted to be faster than average, except in banking. Growth in banking is projected to stagnate here (and nationwide) because of loan losses, automation, and heavy competition from other financial service industries.

Health services (except hospitals) is anticipated to generate nearly one-third of the new jobs in services. Educational services, especially elementary and secondary schools, and business services will also add large numbers of positions. Efforts to control health service costs will slow job growth in

hospitals (which includes state and local government hospitals).

Government employment is forecasted to grow faster than average, especially non-postal federal government. Local government (excluding non-library educational services and hospitals) is expected to create the most new jobs.

Faster than average growth is projected for nonagricultural self-employed and unpaid family workers.

Of all the occupational categories, professional, paraprofessional, & technical is expected to grow fastest, add the most new workers, and have the most total job openings between 1986 to 1993. (See Figure 27.) In 1986, agriculture, forestry, and fishing was the largest occupational category, accounting for 16 percent of the region's jobs. (See Figures 3, 28 and 31.) This

Employment Projections by Industry, 1986 - 1993 Southwest Minnesota

Industry	1986 Estimated Employment	1993 Projected Employment	Numeric Change*	Percent Change*	Percent of Projected 1993 State Industry Employment
TOTAL, ALL INDUSTRIES	171,810	176,790	4,980	3%	7%
Agriculture, Forestry, and Fishing, including Self-Employed/Unpaid Family Workers	27,670	24,180	-3,490	-13	27
Mining	300	300	0	-1	4
Construction	4,540	4,500	-50	-1	5
Manufacturing, Total	29,190	31,830	2,640	9	8
Durable Goods Manufacturing	13,580	15,150	1,580	12	6
Nondurable Goods Manufacturing	15,610	16,680	1,060	7	10
Transportation, Communication, and Public Utilities	5,560	5,980	420	7	6
Transportation	3,780	4,180	400	11	6
Communication and Public Utilities	1,780	1,790	10	1	5
Trade, Total	32,870	32,950	80	0	6
Wholesale Trade	8,090	7,790	-300	-4	6
Retail Trade	24,780	25,170	390	2	6
Finance, Insurance and Real Estate	5,780	6,200	420	7	5
Services, Total	39,910	43,100	3,190	8	6
Health Services, including State and Local Government Hospitals	13,100	14,230	1,130	9	7
Educational Services, including Non-library State and Local Government Educational Services	12,960	13,800	850	7	9
Other Services, including Private Household Workers	13,850	15,070	1,220	9	4
Government, Total	10,680	11,520	850	8	8
Federal Government, including Postal Service	1,330	1,510	180	13	4
State Government, except Non- library Educational Services and Hospitals	1,130	1,170	40	3	4
Local Government, except Non- library Educational Services and Hospitals	8,220	8,850	640	8	10
Self-Employed/Unpaid Family Workers - Nonagricultural	15,310	16,230	920	6	9

Figure 26

*Calculated using unrounded numbers

Projected Job Openings by Occupational Category Southwest Minnesota 1986 - 1993

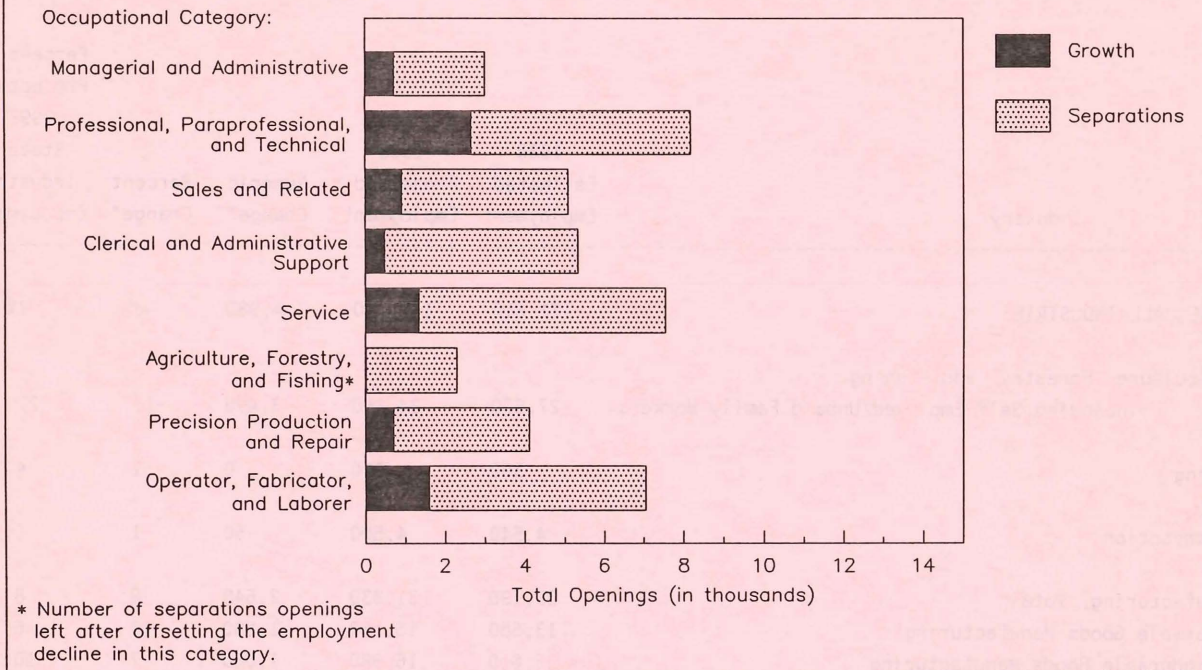


Figure 27

percentage will decrease between 1986 and 1993 while all the other occupational categories except clerical & administrative support gain larger shares of workers.

Registered nurses, retail salespersons, and truck drivers are the occupations projected to add the most workers in the Southwest region. Farmers is projected to decline the most. (See Figures 29 and 30.) Reflecting the patterns of industry growth, retail salespersons ranks lower on the list of the 20 jobs expected to grow the most, electrical/electronic-related occupations appear more and food service-related less often than in other regions.

Employment in the managerial and administrative occupational category is anticipated to grow faster than average, with the most growth expected in general managers & top

executives and the fastest growth in marketing, advertising, & public relations managers.

In the professional, paraprofessional and technical category, health practitioners and technicians is the subcategory projected to expand most. Computer & related occupations and engineers, architects, & surveyors are anticipated to increase fastest. Electrical and electronic engineers is the fastest-growing occupation in any category; it is anticipated to add 120 workers.

Sales and related occupations is forecasted to add jobs faster than average, with retail salespersons adding the most.

The number of clerical and administrative support positions is expected to grow slightly slower than average. General office clerk

Employment Distribution by Occupational Category Southwest Minnesota 1986 and 1993

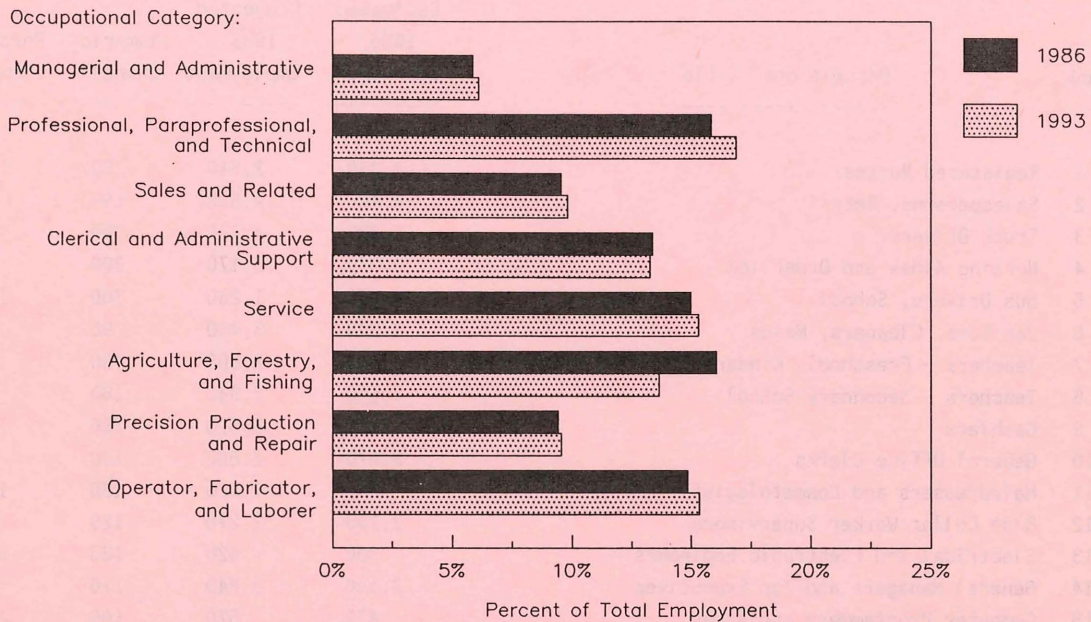


Figure 28

and receptionists & information clerk jobs will increase the most.

Employment in the service occupational category is projected to grow somewhat faster than average, with the fastest growth in the protective service subcategory and most growth in health service occupations. Here, unlike in the other regions, jobs in the food and beverage subcategory are expected to be generated slowly, because of very slow projected growth in the eating and drinking places industry.

The number of jobs in the agriculture, forestry, and fishing occupational category is projected to decline substantially, particularly for farmers and farm workers. Slight growth is projected for gardeners & groundskeepers, and farm managers.

Precision production and repair is

expected to add jobs at a slightly faster than average rate, with precision production occupations growing the fastest and most.

The operators, fabricators, and laborers category is expected to grow faster than average and, among the occupational categories, add the second-highest number of jobs. Truck drivers, school bus drivers, and precision electromechanical equipment assemblers are projected to increase most. This category also contains three of the ten occupations foreseen to decline the most.

In the Southwest region, many more job openings are expected from labor force separations than from job growth. In total, 42,550 job openings are anticipated between 1986 and 1993, 12 percent of these from growth and 88 percent from separations.

**Occupations with Largest Projected Employment Growth
1986 - 1993
Southwest Minnesota**

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
----	-----	-----	-----	-----	-----
1	Registered Nurses	2,350	2,610	260	11%
2	Salespersons, Retail	4,400	4,660	260	6
3	Truck Drivers	4,080	4,330	260	6
4	Nursing Aides and Orderlies	2,970	3,170	200	7
5	Bus Drivers, School	1,060	1,260	200	19
6	Janitors, Cleaners, Maids	3,240	3,430	190	6
7	Teachers - Preschool, Kindergarten, and Elementary	2,430	2,600	180	7
8	Teachers - Secondary School	2,170	2,330	160	7
9	Cashiers	3,360	3,510	150	4
10	General Office Clerks	2,670	2,800	130	5
11	Hairdressers and Cosmetologists	990	1,120	130	13
12	Blue Collar Worker Supervisors	2,150	2,270	120	6
13	Electrical and Electronic Engineers	300	420	120	39
14	General Managers and Top Executives	3,130	3,240	110	4
15	Computer Programmers and Aides	470	570	100	22
16	Licensed Practical Nurses	1,120	1,220	100	9
17	Electromechanical Equipment Assemblers - Precision	300	400	100	33
18	Accountants and Auditors	1,240	1,340	100	8
19	Receptionists, Information Clerks	790	890	100	12
20	Secretaries	3,540	3,630	90	2

Figure 29

**Occupations with Largest Projected Employment Decline
1986 - 1993
Southwest Minnesota**

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
----	-----	-----	-----	-----	-----
1	Farmers	19,850	17,110	-2,740	-14%
2	Farm Workers	5,370	4,600	-770	-14
3	Typists and Word Processors	1,080	980	-100	-9
4	Industrial Truck and Tractor Operators	450	390	-60	-14
5	Electrical, Electronic Assemblers (Non-Precision)	680	630	-50	-7
6	Food Counter, Fountain and Related	1,780	1,740	-40	-2
7	Cannery Workers	1,240	1,200	-30	-3
7	Bookkeeping and Accounting Clerks	3,350	3,310	-30	-1
9	Data Entry Keyers, Except Composing	390	360	-30	-8
10	Tellers	840	820	-30	-3

*Calculated using unrounded numbers

Figure 30

Employment Projections by Specific Occupation 1986 - 1993 Southwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
TOTAL, ALL OCCUPATIONS	171,810	176,800	3%	4,990	37,560	42,550
MANAGERIAL AND ADMINISTRATIVE OCC.	10,070	10,790	7	730	2,260	3,000
Financial Managers	890	950	7	60	150	220
Personnel, Training, Labor Rel.Mgr	190	200	6	10	30	40
Purchasing Managers	390	380	-2	-10	40	30
Marketing, Adv., Public Rel.Mgrs	590	650	10	60	110	170
Postmasters, Mail Superintendent	130	130	4	10	70	80
Education Administrators	340	370	7	30	70	100
Property, Real Estate Management	90	100	10	10	40	50
Food Service & Lodging Managers	580	620	6	30	150	180
Public Admin., Leg., Gen. Admin.	170	180	7	10	60	70
General Managers and Top Exec.	3,130	3,240	4	110	760	880
PROFESSIONAL, PARAPROFESS.,TECH.	27,230	29,880	10	2,660	5,540	8,180
MANAGEMENT SUPPORT OCCUPATIONS	3,720	4,010	8	280	720	990
Financial Specialists	1,440	1,550	8	110	260	370
Underwriters	70	80	13	10	0	10
Loan Officers and Counselors	130	130	5	10	20	30
Accountants and Auditors	1,240	1,340	8	100	240	340
Purchasing Agents and Buyers	480	480	-1	0	80	70
Wholesale, Retail Buyers, Ex.Farm	290	270	-6	-20	40	20
Purchasing Agent Ex.Who/Ret/Farm	190	200	8	20	40	50
Personnel Specialists & Related	250	260	4	10	40	50
Personnel, Train.,Labor Rel. Spec	210	210	0	0	40	40
Other Management Support Occ.	1,560	1,720	10	160	340	500
Cost Estimators	210	230	10	20	20	40
Management Analysts	70	70	5	0	20	20
Construction, Building Inspector	70	70	4	0	40	40
Compliance & Enforce. Inspectors	120	140	15	20	30	50
ENGINEERS, ARCHITECTS, SURVEYORS	2,080	2,450	18	370	340	690
Engineers	920	1,140	23	220	140	350
Civil Engineers, Incl. Traffic	140	150	6	10	30	40
Electrical & Electronic Engineer	300	420	39	120	40	150
Industrial Engineers, Exc. Safety	110	140	22	20	20	40
Mechanical Engineers	230	280	21	50	40	80
Architects	100	110	7	10	10	20
Architects, Exc. Land. & Marine	80	80	5	0	10	20
Surveying and Mapping Scientists	80	80	4	0	10	10
Engineering Technicians	980	1,130	15	140	170	310
Electrical & Electronic Techns.	290	370	29	80	20	110
Drafters	370	380	2	10	80	80
NATURAL SCIENTISTS	620	680	9	60	110	160
Physical Scientists	140	150	7	10	20	30
Chemists, Except Biochemists	90	90	7	10	10	20
Life Scientists	220	250	13	30	40	60
Forester, Conservation Scientist	60	70	15	10	10	10
Agricultural and Food Scientists	60	70	16	10	10	20
Biological Scientists	70	80	13	10	10	10
Physical & Life Sci. Technicians	260	280	8	20	60	80
COMPUTER AND MATHEMATICAL OCC.	820	1,000	21	170	120	290
Computer and Related Occupations	780	950	22	170	120	290
Computer Systems Analysts, EDP	300	370	23	70	10	80
Computer Programmers & Aides	470	570	22	100	110	210
SOCIAL SCIENTISTS,RECR.,RELIGION	1,720	1,840	7	120	470	590
Social Scientists	200	210	8	20	30	40
Urban and Regional Planners	50	50	7	0	0	0
Psychologists	120	130	10	10	20	40

Figure 31

Employment Projections by Specific Occupation 1986 - 1993 Southwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Social, Recreation, Religion Occ	1,520	1,620	7	100	440	550
Social Service Technicians	180	200	7	10	30	40
Social Workers	680	730	7	50	150	200
Recreation Workers	280	290	7	20	80	110
Clergy	250	270	6	10	130	140
Directors, Religious Activ./Educ.	130	130	6	10	60	60
LAW AND RELATED OCCUPATIONS	1,010	1,130	11	110	310	420
Lawyers and Judges	860	940	9	80	280	360
Lawyers	830	910	9	80	270	350
Legal Assistants and Technicians	160	190	22	40	30	60
Paralegal Personnel	60	70	27	20	10	20
TEACHERS, LIBRARIANS, COUNSELORS	7,930	8,480	7	550	1,620	2,180
College and University Faculty	620	640	4	30	130	160
Teachers and Instructors	6,830	7,320	7	490	1,370	1,860
Teachers, Preschool, Kinder, Elem.	2,430	2,600	7	180	530	700
Teachers, Secondary School	2,170	2,330	7	160	320	480
Teachers, Vocational Education	290	320	13	40	80	120
Instructors, Nonvocational Educ.	310	320	5	20	90	110
Librarians, Archivists, Curators	490	520	7	40	120	160
Librarians, Professional	240	260	8	20	60	80
Technical Assistants, Library	100	100	6	10	30	40
Vocational & Educ. Counselors	140	150	8	10	20	40
HEALTH PRACTITIONERS, TECHNICIANS	6,630	7,360	11	730	1,270	2,000
Health Treating Practitioners	940	1,040	11	100	360	460
Physicians and Surgeons	450	500	11	50	170	220
Dentists	320	350	10	30	130	160
Optometrists	50	60	17	10	30	40
Veterinarians, Vet. Inspectors	100	110	14	10	20	40
Therapists	460	530	16	70	50	130
Respiratory Therapists	50	50	9	0	0	10
Occupational Therapists	70	90	20	20	10	20
Physical Therapists	120	150	30	40	10	50
Speech Pathologists, Audiologists	90	100	14	10	10	30
Recreation Therapists	90	90	6	10	10	10
Health Care Maintenance, Treating	4,070	4,470	10	410	640	1,050
Registered Nurses	2,350	2,610	11	260	370	640
Licensed Practical Nurses	1,120	1,220	9	100	140	240
Emergency Medical Technicians	110	130	12	10	10	30
Physician Assistants	50	60	13	10	0	10
Opticians, Dispensing & Measur.	90	100	12	10	20	40
Pharmacists	250	260	5	10	70	80
Dietitians and Nutritionists	70	70	4	0	10	10
Med. Technicians & Technologists	770	860	12	90	130	220
Dental Hygienists	140	170	21	30	10	40
Med. & Clinic Lab Tech. & Techno	330	340	5	20	70	80
Medical Records Techn. & Technol.	80	100	22	20	20	40
Radiologic Technol. & Technician	130	150	14	20	30	50
Surgical Technicians	60	70	12	10	10	10
Other Health Prof., Para, Tech	400	460	14	60	90	150
WRITER, ARTIST, ENTER., ATHLETE	1,630	1,770	9	150	340	500
Writers, Editors, Incl Technical	290	330	14	40	60	110
Public Relations Specialists	110	110	6	10	30	40
Radio & TV Accouncer & Newscast.	110	130	11	10	30	40
Reporters and Correspondents	110	120	12	10	40	50
Photographers	90	100	11	10	20	30
Camera Operators, TV & Movies	60	60	7	0	10	20
Broadcast Technicians	50	50	11	10	10	10
Designers	270	290	7	20	60	80
Artists and Related Workers	300	330	8	30	40	70
Musicians	180	190	6	10	40	60
OTHER PROF., PARAPROF., TECHN.	1,070	1,190	11	110	240	350

Figure 31 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
SALES AND RELATED OCCUPATIONS	16,430	17,360	6	930	4,150	5,080
SALES OCCUPATIONS, SERVICES	1,410	1,580	12	180	480	670
Insurance Sales Workers	640	710	10	60	200	270
Brokers, Real Estate	50	60	10	10	20	30
Sales Agents, Real Estate	450	510	13	60	180	240
Securities, Financial Serv. Sales	110	140	25	30	30	60
Travel Agents	110	130	16	20	40	60
SALES OCC., RETAIL AND RELATED	9,500	9,970	5	470	2,490	2,950
Salespersons, Retail	4,400	4,660	6	260	1,390	1,650
Counter and Rental Clerks	150	160	7	10	40	50
Stock Clerks, Sales Floor	1,600	1,650	3	50	490	550
Cashiers	3,360	3,510	4	150	560	710
OTHER SALES & RELATED OCC.***	5,520	5,810	5	280	1,180	1,460
CLERICAL & ADMIN. SUPPORT OCC.	23,000	23,490	2	490	4,840	5,330
FIRST LINE SUPERVISORS, CLERICAL	1,220	1,270	4	40	220	270
INDUSTRY SPECIFIC SUPPORT OCC.	3,780	3,960	5	180	640	810
Banking, Security, Finance, Credit	1,580	1,570	0	0	200	200
Tellers	840	820	-3	-30	60	40
New Accounts Clerks	170	170	1	0	40	40
Loan and Credit Clerks	240	250	2	10	40	40
Adjustment Clerks	180	190	6	10	40	50
Statement Clerks	80	90	5	0	10	20
Records Processing Occ. Exc Finan	2,210	2,390	8	180	440	620
Insurance Adjusters, Investigator	70	80	17	10	10	20
Insurance Claims Clerks	50	50	6	0	10	10
Insurance Policy Process. Clerks	110	110	-2	0	10	10
Welfare Eligibility Workers	190	200	9	20	10	30
Bill and Account Collectors	100	110	10	10	20	30
Court Clerks	70	70	14	10	10	20
Municipal Clerks	80	90	7	10	10	20
Hotel Desk Clerks	90	100	8	10	30	40
Library Assistants & Bookmobile	220	240	9	20	40	60
Teacher Aides & Educ. Assistants	1,120	1,210	8	90	250	330
SECRETARIES	3,540	3,630	2	90	750	830
GENERAL OFFICE OCCUPATIONS	9,450	9,520	1	70	2,300	2,360
Stenographers	150	150	-3	0	40	40
Receptionists, Information Clerks	790	890	12	100	180	280
Typists and Word Processors	1,080	980	-9	-100	220	110
Personnel Clerks, Except Payroll	100	100	3	0	20	20
File Clerks	200	200	0	0	40	40
Order Clerks: Materials, Service	300	300	0	0	60	60
Statistical Clerks	50	50	-7	0	10	0
Interviewing Clerks, Ex. Personnel	80	80	8	10	10	20
Bookkeeping & Accounting Clerks	3,350	3,310	-1	-30	880	840
Payroll and Timekeeping Clerks	220	210	-3	-10	50	40
Billing, Cost and Rate Clerks	380	370	-3	-10	60	50
General Office Clerks	2,670	2,800	5	130	710	850
DATA PROCESSING, OFFICE MACHINES	1,060	1,070	1	10	90	100
Bill., Post, Calculating Mach. Op	150	150	0	0	10	10
Computer Operators, Exc. Periph.	290	310	8	20	10	40
Peripheral EDP Equip. Operators	50	50	9	0	10	10
Data Entry Keyers, Ex. Composing	390	360	-8	-30	20	-10
Dupl., Mail, & Other Office Equ.	180	180	4	10	40	40

Figure 31 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
COMMUNICATIONS EQUIP. OPERATORS	320	330	2	10	80	90
Switchboard Operators	260	270	5	10	70	80
Central Office Operators	50	50	-7	0	10	10
MAIL & MESSAGE DISTRIB. WORKER	530	540	3	10	150	170
Mail Clerks, Exc. Mail Machine	160	160	1	0	40	40
Postal Mail Carriers	270	280	4	10	80	90
Postal Service Clerks	50	50	2	0	10	10
Messengers	50	50	-2	0	20	20
MATERIAL RECORD., SCHED., DISTRIB	2,520	2,560	2	40	480	530
Dispatcher: Police, Fire, Ambulance	80	90	7	10	10	20
Dispatchers: Exc. Pol., Fire, Amb.	130	140	5	10	30	40
Production, Expediting Clerks	240	260	11	30	40	70
Meter Readers, Utilities	70	60	-3	0	10	10
Weighers, Measurers, Checkers	50	50	0	0	10	10
Stock Clerks: Stockroom Or Wareh.	760	750	-1	-10	150	130
Order Fillers, Sales	310	290	-7	-20	60	40
Traffic, Shipping, & Rec. Clerks	730	750	4	30	130	160
OTHER CLERICAL & ADM. SUPPORT	580	620	7	40	130	170
SERVICE OCCUPATIONS	25,750	27,090	5	1,350	6,190	7,530
FIRST LINE SUPERVISORS, SERVICE	330	350	8	30	200	220
Police and Detective Supervisors	160	180	10	20	30	40
Housekeepers, Institutional	130	140	4	10	160	170
PRIVATE HOUSEHOLD OCCUPATIONS	940	990	5	50	550	600
Housekeepers and Butlers	120	120	5	10	30	40
Child Care Wkrs., Pvt. Household	460	490	5	20	100	120
Cleaners & Servants, Pvt. House.	350	370	5	20	420	440
PROTECTIVE SERVICE OCCUPATIONS	1,500	1,650	10	150	310	460
Fire Fighters	240	260	10	20	40	60
Police Detectives & Investigator	60	60	13	10	10	20
Police Patrol Officers	500	550	10	50	40	90
Correction Officers and Jailers	110	120	17	20	10	40
Guards and Watch Guards	240	260	9	20	110	130
FOOD AND BEVERAGE OCCUPATIONS	11,400	11,640	2	240	2,500	2,740
Hosts & Hostesses: Rest., Lounge	330	340	2	10	90	100
Bartenders	770	800	5	40	180	210
Waiters and Waitresses	2,980	3,060	3	80	350	430
Dining Room & Bartender Helpers	630	660	4	30	60	90
Bakers, Bread and Pastry	410	460	12	50	140	190
Cooks, Restaurant	860	880	3	30	270	300
Cooks, Institution or Cafeteria	730	760	4	30	230	260
Cooks, Fast Food and Short Order	910	890	-3	-20	190	170
Food Preparation Workers	1,640	1,680	2	40	550	580
Food Counter, Fountain & Related	1,780	1,740	-2	-40	360	330
HEALTH SERVICE OCCUPATIONS	4,180	4,530	9	360	990	1,330
Dental Assistants	240	280	19	50	20	60
Medical Assistants	100	130	24	20	20	40
Nursing Aides and Orderlies	2,970	3,170	7	200	670	880
Home Health Aides	260	300	18	50	110	150
Psychiatric Aides	200	190	-6	-10	40	30
Physical, Correct. Therapy Assist	110	140	28	30	30	60
Occupational Therapy Assistants	60	70	12	10	10	20
Pharmacy Assistants	100	100	2	0	20	20
CLEANING & BUILDING SERVICE OCC.	3,670	3,900	6	230	780	1,020
Janitors, Cleaners, Maids	3,240	3,430	6	190	690	890

Figure 31 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
PERSONAL SERVICE OCCUPATIONS	2,860	3,090	8	230	680	910
Barbers	210	220	6	10	110	130
Hairdressers and Cosmetologists	990	1,120	13	130	220	340
Amusement & Recreation Attendant	400	430	6	20	80	100
Social Welfare Service Aides	100	110	8	10	40	50
Child Care Workers	1,100	1,170	6	70	220	290
OTHER SERVICE WORKERS	880	950	8	70	190	260
AGRICULTURE, FORESTRY, FISHING	27,610	24,140	-13	-3,470	5,750	2,290
FARM OPERATORS AND MANAGERS	20,510	17,810	-13	-2,700	4,220	1,520
Farmers	19,850	17,110	-14	-2,740	3,850	1,110
Farm Managers	670	710	6	40	370	410
SUPERVISORS, FARM, FOREST, AG.REL	130	130	1	0	30	30
FORESTRY AND LOGGING OCCUPATIONS	270	230	-13	-30	50	20
Fallers and Buckers	110	100	-14	-20	20	10
Log Handling Equipment Operators	120	100	-14	-20	20	10
FARM WORKERS	5,370	4,600	-14	-770	1,040	270
OTHER AGRIC., FOREST, FISH.	1,340	1,370	3	40	420	460
Forest and Conservation Workers	80	100	17	10	10	30
Nursery Workers	70	70	-3	0	30	30
Gardeners and Groundskeepers	580	620	7	40	260	290
Animal Caretakers, Except Farm	140	140	0	0	30	30
PRECISION PRODUCTION AND REPAIR	16,190	16,900	4	710	3,390	4,100
BLUE COLLAR WORKER SUPERVISORS	2,150	2,270	6	120	460	590
MECHANICS, INSTALLERS, REPAIRERS	5,690	5,820	2	140	1,100	1,240
Industrial Machinery Mechanics	530	560	6	30	110	140
Millwrights	60	60	2	0	10	10
Maintenance Repairers, Gen.Util.	1,240	1,300	5	60	270	330
Vehicle & Mobile Equip. Mechanic	2,390	2,450	3	60	390	460
Automotive Mechanics	1,180	1,210	3	30	200	230
Automotive Body, Related Repairer	350	370	4	10	50	60
Bus, Truck, Diesel Eng. Mechanic	410	430	7	30	60	80
Mobile Heavy Equipment Mechanics	160	160	1	0	30	30
Farm Equipment Mechanics	200	180	-8	-20	50	40
Communications Equip. Mechanics	140	130	-7	-10	30	20
Central Office & PBX Instal/Rpr.	100	90	-10	-10	20	10
Electrical & Electronic Eq.Mech.	520	520	0	0	70	70
Telephone & Cable TV Instal/Rpr.	130	120	-6	-10	0	-10
Home Entertainment Eq. Repairers	70	70	0	0	10	10
Home Appli. & Power Tool Repairer	120	110	-9	-10	30	10
Electrical Powerline Instal/Rpr.	90	90	1	0	10	10
Other Mechanics, Installers, Rep	810	810	-1	-10	220	220
Heating, A/C, Refrig. Mechanics	200	190	-4	-10	40	30
Office Machine, Register Servicer	90	80	-11	-10	10	10
Tire Repairers and Changers	90	90	-1	0	10	10
CONSTRUCTION TRADES, EXTRACTIVE	4,540	4,660	3	120	920	1,040
Construction Workers	4,420	4,540	3	120	900	1,020
Carpenters	1,650	1,710	4	60	350	410
Drywall Installers & Finishers	120	120	4	10	30	40
Electricians	510	500	-1	-10	90	80
Bricklayers and Stone Masons	160	170	2	0	40	40
Concrete and Terrazzo Finishers	110	110	1	0	10	10
Struct. & Reinforce. Metal Worker	50	50	2	0	10	10
Painters and Paperhangers	400	420	5	20	110	130

Figure 31 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Plumber, Pipefitter, Steamfitter	410	410	0	0	100	100
Pipelayers & Pipelaying Fitters	60	60	3	0	10	10
Carpet Installers	110	120	6	10	10	20
Paving, Surfacing, Tamping	70	70	3	0	0	0
Highway Maintenance Workers	350	380	7	30	70	100
Roofers	120	120	-1	0	10	10
Extractive and Blasting Workers	120	120	2	0	30	30
PRECISION PRODUCTION OCCUPATIONS	3,310	3,610	9	300	780	1,090
Precision Metal Workers	1,000	1,090	10	100	200	300
Tool and Die Makers	170	200	22	40	40	80
Machinists	340	380	12	40	60	110
Sheet Metal Workers	360	370	3	10	60	70
Precision Woodworkers	270	300	11	30	60	90
Precision Textile, Apparel, Furn	300	310	5	10	150	170
Custom Tailors and Sewers	140	150	3	0	100	110
Upholsterers	100	110	7	10	40	50
Precision Printing Workers	420	500	18	80	80	150
Precision Compositor, Typesetter	70	70	1	0	10	10
Job Printers	140	160	20	30	20	50
Precision Lithographers & Photo.	180	230	24	40	40	80
Precision Food Workers	970	1,020	5	50	220	270
Butchers and Meatcutters	680	720	6	40	150	190
Bakers, Manufacturing	60	60	5	0	20	20
Other Precision Workers	360	390	9	30	70	110
Dental Laboratory Technicians	70	70	6	0	10	20
PLANT & SYSTEM OCCUPATIONS	510	540	5	30	120	150
Water & Waste Treat. Plant Oper.	180	200	9	20	40	60
Stationary Engineers	120	120	0	0	40	40
Power & Reactor Plant Operators	60	70	6	0	10	20
OPERATOR, FABRICATOR AND LABORER	25,540	27,140	6	1,600	5,440	7,040
INSPECTORS & RELATED OCCUPATIONS	690	770	12	90	150	240
MACH.SET.,SET-UP OP.,OPER.& TEND	6,410	6,940	8	530	1,410	1,950
Metal & Plas. Mach. Set/Ops/Tend	1,750	1,920	10	170	320	490
Lathe,Turning Mach.Setter/Op,M/P	100	120	16	20	10	30
Drilling,Boring Mach.Set/Op.,M/P	50	50	8	0	10	10
Grinding,Buffering Mach.Set/Op.M/P	80	80	11	10	10	20
Machine Tool Cutting Oper., M/P	100	100	7	10	10	20
Punching Mach. Setter/Oper., M/P	90	110	16	20	10	30
Machine Forming Operators, M/P	200	200	-1	0	30	30
Numerical Control Mach.Tool, M/P	110	140	25	30	10	40
Combin. Mach.Tool Set/Oper. M/P	100	110	18	20	20	40
Welding Machine Set/Ops/Tenders	170	180	4	10	40	40
Metal Molding Mach.Ops/Tend/Set	50	50	13	10	10	10
Electrolytic Plating Mach.Opers.	120	130	6	10	30	40
Plastic Molding, Casting Oper.	250	290	20	50	60	110
Woodworking Machine Setters, Op.	90	100	13	10	20	40
Head Sawyers & Saw Mach.Opr/Tend	60	60	13	10	10	20
Printing, Binding, & Related Occ	1,300	1,540	19	240	270	510
Offset Lithographic Press Setter	180	230	27	50	30	80
Letterpress Setter/Operator	110	120	8	10	10	20
Photoeng.& Lithog. Mach.Ops/Tend	90	110	24	20	20	40
Screen Printing Mach. Setter/Op.	80	100	21	20	20	40
Bindery Mach. Operators/Set/Tend	290	350	23	70	70	140
Typesetting Mach. Operator/Tend.	110	120	7	10	10	20
Printing Press Mach.Ops/Set/Tend	300	340	16	50	60	110
Textile Mach.Operators & Related	580	590	2	10	220	230
Sewing Mach. Operator, Garment	120	120	-3	0	40	40
Sewing Mach. Oper., Non-Garment	70	80	18	10	30	40
Laundry, Drycleaning Mach. Oper.	280	280	0	0	120	120
Other Mach. Set,Operators,Tender	2,690	2,790	4	100	600	690

Figure 31 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southwest Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Cooking Machine Oper., Food/Tob.	160	150	-4	-10	40	30
Furnace, Kiln, Oven, Kettle Oper.	60	60	3	0	20	20
Low Pressure Boiler Operator	70	70	1	0	20	20
Dairy Processing Equip. Operator	480	470	-1	-10	80	70
Cutting & Slicing Mach. Set/Ops	160	170	10	20	40	50
Painters, Transportation Equip.	50	50	0	0	10	10
Painting Machine Operators	170	180	10	20	40	50
Crushing & Mixing Machine Oper.	300	300	-2	-10	50	40
Extruding & Forming Mach.Set/Ops	90	100	4	0	20	30
Packaging & Filling Machine Oper.	730	780	7	50	210	270
HAND WORKING OCC., INC. ASSEMBLER	6,580	6,980	6	400	1,230	1,630
Precision Assemblers	1,030	1,220	18	190	170	360
Machine Builders - Precision	160	150	-6	-10	30	20
Electromech. Eq. Assembler -Prec.	300	400	33	100	60	150
Electric., Electronic Assembler-Prec	420	500	21	90	50	130
Other Hand Workers & Assemblers	5,550	5,760	4	220	1,060	1,270
Machine Assemblers	70	80	12	10	10	20
Electrical, Electronic Assembler	680	630	-7	-50	110	60
Coil Winders, Tapers, Finishers	130	140	8	10	20	30
Welders and Cutters	540	540	0	0	80	80
Cannery Workers	1,240	1,200	-3	-30	180	150
Meat, Poultry, Fish Cutters	760	810	6	50	180	230
Grinding and Polishing, Hand	100	100	6	10	30	40
TRANSP. & MAT. MOVING MACH.OPER.	7,610	8,020	5	410	1,710	2,120
Motor Vehicle Operators	5,620	6,100	9	480	1,310	1,790
Truck Drivers	4,080	4,330	6	260	880	1,130
Bus Drivers	100	130	28	30	40	60
Bus Drivers, School	1,060	1,260	19	200	340	530
Taxi Drivers and Chauffeurs	50	60	10	10	20	30
Driver/Sales Workers	290	290	-2	-10	40	30
Rail Transportation Workers	70	50	-28	-20	10	-10
Material Moving Equipment Oper.	1,300	1,240	-4	-60	260	210
Excavation Loading Machine Oper.	120	120	0	0	20	20
Grader, Dozer, Scraper Operators	210	220	2	0	90	100
Crane and Tower Operators	50	40	-2	0	10	10
Industrial Truck & Tractor Oper.	450	390	-14	-60	50	-10
Operating Engineers	220	230	5	10	40	60
Other Transp., Mat.Moving Opr	630	630	0	0	130	130
Service Station Attendants	420	420	-1	0	80	80
HELPER, LABORER, MAT.MOVER, HAND	4,260	4,430	4	170	930	1,100
Construction Trades Helpers	350	350	-1	-10	70	60
Machine Feeders and Offbearers	360	420	15	50	60	110
Hand Freight, Stock, Mat. Movers	2,080	2,150	3	70	490	560
Refuse Collectors	100	100	7	10	40	40
Freight & Material Movers, Hand	830	810	-2	-20	170	150
Hand Packers and Packers	900	970	7	70	250	320
Vehicle, Equipment Cleaners	250	260	7	20	40	60
Other Helper, Laborer, Mover	1,470	1,520	3	50	320	360

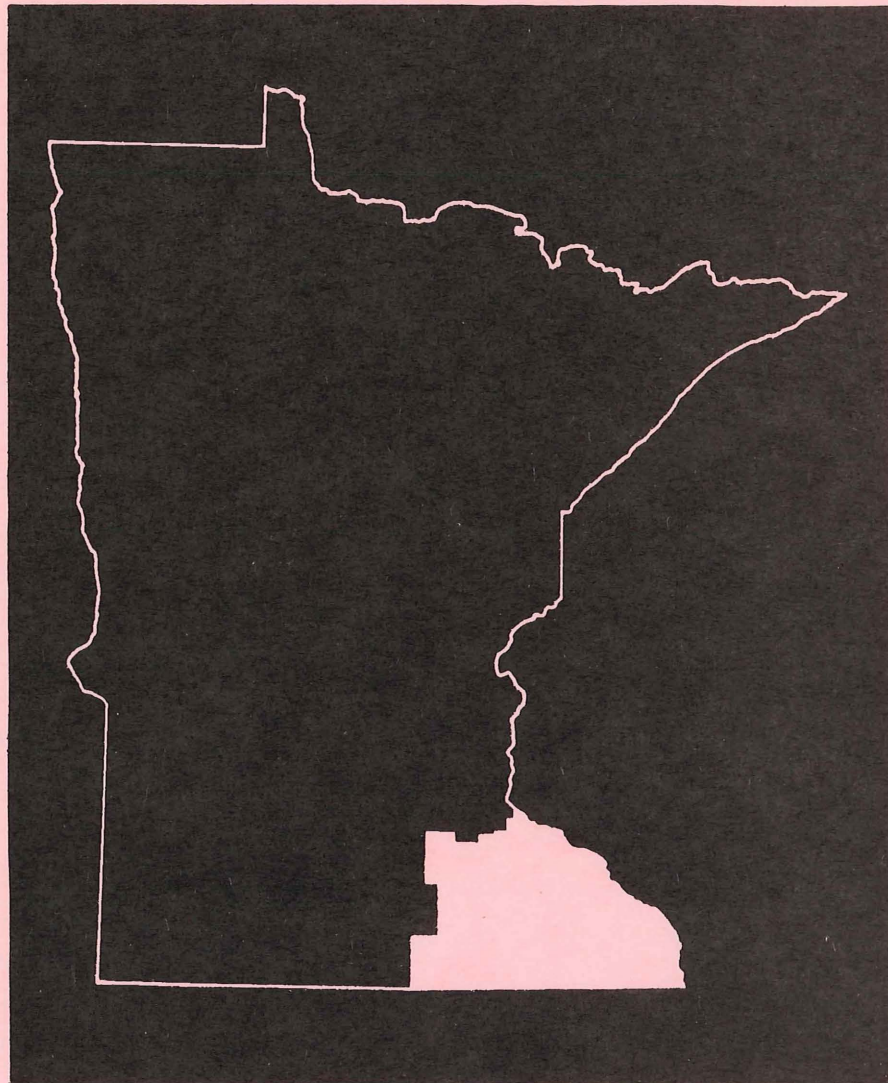
*Calculated using unrounded numbers

**Total Openings includes openings due to growth or decline (numeric change between 1993 and 1986 employment), plus openings from labor force separations (workers who retire, die, or leave the labor force for other reasons, such as disability or family responsibilities). This does not include openings that are the result of workers changing occupations or geographic location.

***Sales Supervisors, Sales Engineers, and Sales Representatives

NOTE: Those occupations which employed less than 50 people in 1986 have been left out of this table, as well as those "All Other" occupations which were on a detail level, such as "All Other Managers and Administrators".

Southeast Minnesota



Southeast Minnesota

This region contains 11 counties in the southeastern part of the state, those in Economic Development Region 10. In 1986, nine percent of all jobs in Minnesota were located here. The large communities are centers of services, manufacturing, and retail trade. Rochester is a major center for health services (the Southeast region had 15 percent of the state's health service jobs in 1986) and also has many jobs in manufacturing. In the Southeast region, the services industry accounts for nearly one-third of employment. Manufacturing is the next largest industry, followed by trade and agriculture, forestry & fishing. (See Figure 32.)

Total employment in Southeast Minnesota is projected to increase from 189,220 in 1986 to 203,350 in 1993, a seven percent gain. This is slower than growth statewide but equal to the growth rate for Greater Minnesota (11% and 7%, respectively). Services and trade are anticipated to grow fastest, with services projected to generate about half of the new jobs in this region. (See Figure 33.) Employment in agriculture, forestry, and fishing is forecasted to decline substantially.

Agriculture, forestry, and fishing jobs are projected to decline because of farm consolidations, mechanization, and land development. On a different note, agricultural services, which includes landscaping and horticultural services like lawn care, is expected to grow rapidly and add around 200 jobs.

Employment in mining, a miniscule industry in this area, is expected to decline just slightly.

Employment in construction is forecasted to grow slowly. Special trade contractors are projected to experience the most growth. The

percentage increase in this area is smaller than in all other regions in the state except Southwest.

Manufacturing employment is projected to experience slower than average net growth, however, the number of jobs in the durable goods sector is anticipated to increase faster than average. Electrical and electronic equipment is projected to grow very rapidly and add the largest number of new jobs in this sector. Substantial numbers of new jobs are also anticipated to be generated by nonelectrical machinery (which includes office and computing machinery, among other things), even though its projected growth rate is lower than average, and by furniture and fixtures. The job level in nondurable goods is projected to remain the same as in 1986, with food & kindred products declining substantially, and printing & publishing and miscellaneous plastics products adding the most new jobs.

Jobs in transportation, communication, and public utilities are anticipated to expand about as fast as average, with transportation jobs increasing faster. Local and inter-urban passenger transit, especially school buses, is projected to grow the fastest and most. The number of railroad positions is forecasted to decline. Slow growth is expected in communication and public utilities.

Trade, particularly retail, is projected to generate jobs faster than average. Wholesale trade employment is expected to expand about average, with nondurable goods having the most new jobs. Retail trade will experience abundant growth. Over 1,000 new jobs are anticipated in eating and drinking places. General merchandise stores are projected to add around 900

Employment Distribution by Industry Group Southeast Minnesota 1986 and 1993

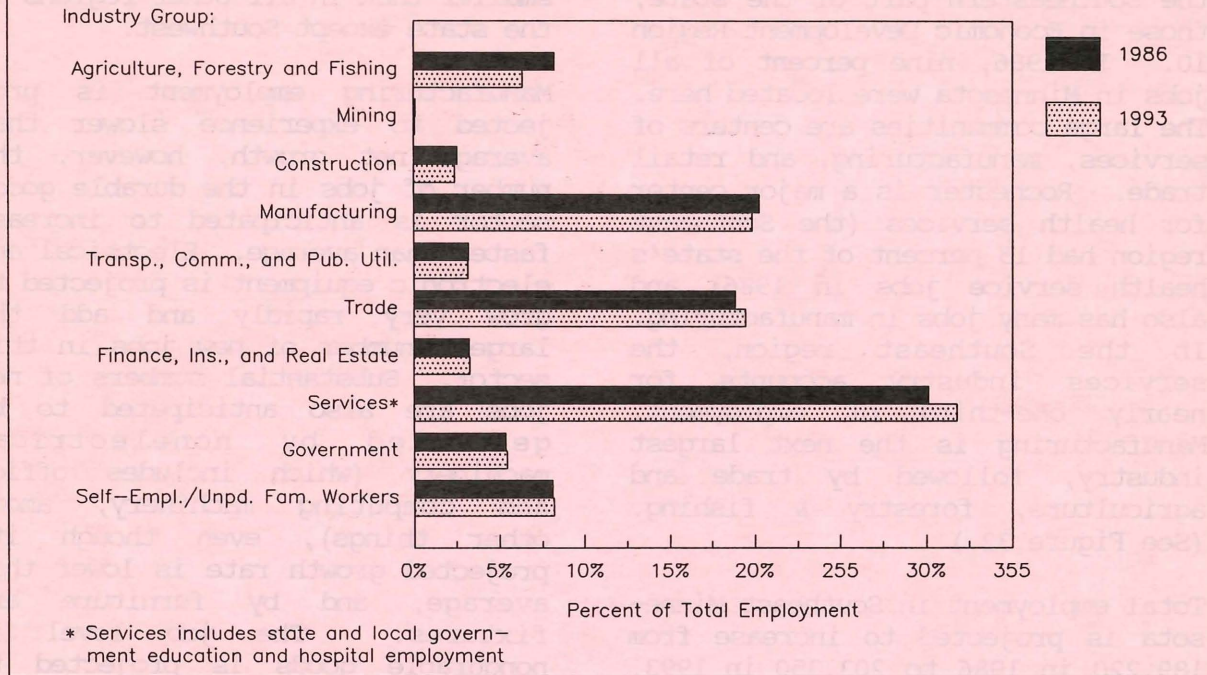


Figure 32

positions, and food stores will also add many workers.

Employment in finance, insurance, and real estate is projected to increase slightly faster than average, with the fastest growth foreseen in real estate and the most growth in insurance. Employment in the banking industry is expected to decline slightly. Job growth in this is stagnating all over the nation because of loan losses, automation, and competition from other financial service industries.

Services is projected to grow the fastest and add the most new jobs of all the industry groups. Employment in health services (excluding hospitals), social services, and business services will all both grow rapidly and generate the largest numbers of jobs in this group. Health services (not including hospitals) alone is forecasted to add over 3,000 workers. Employment

growth in hospitals will be slowed by efforts to control health service costs, yet hospitals (including state and local government hospitals) is still projected to grow as fast as average and add many new positions. Educational services, particularly elementary and secondary schools, will also add a large number of jobs.

Government employment is forecasted to grow slightly faster than average. Employment should grow fastest in non-postal federal government. Local government, excluding non-library educational services and hospitals, is expected to grow the most.

The number of nonagricultural self-employed and unpaid family workers is projected to increase at an average rate.

From an occupational standpoint, the most job growth and total job

Employment Projections by Industry, 1986 - 1993 Southeast Minnesota

Industry	1986 Estimated Employment	1993 Projected Employment	Numeric Change*	Percent Change*	Percent of Projected 1993 State Industry Employment
TOTAL, ALL INDUSTRIES	189,220	203,350	14,130	7%	9%
Agriculture, Forestry, and Fishing, including Self-Employed/Unpaid Family Workers	15,540	12,920	-2,620	-17	14
Mining	250	230	-10	-6	3
Construction	4,850	4,930	80	2	6
Manufacturing, Total	38,260	40,280	2,020	5	10
Durable Goods Manufacturing	22,420	24,440	2,020	9	10
Nondurable Goods Manufacturing	15,850	15,850	0	0	10
Transportation, Communication, and Public Utilities	6,060	6,420	360	6	6
Transportation	3,910	4,230	330	8	6
Communication and Public Utilities	2,150	2,190	40	2	6
Trade, Total	35,600	39,540	3,940	11	7
Wholesale Trade	5,830	6,180	340	6	5
Retail Trade	29,770	33,360	3,590	12	8
Finance, Insurance and Real Estate	6,140	6,660	520	9	5
Services, Total	57,000	64,590	7,590	13	9
Health Services, including State and Local Government Hospitals	25,690	29,930	4,240	16	16
Educational Services, including Non-library State and Local Government Educational Services	12,760	13,490	730	6	9
Other Services, including Private Household Workers	18,550	21,170	2,620	14	6
Government, Total	10,150	11,090	950	9	7
Federal Government, including Postal Service	1,410	1,680	270	19	5
State Government, except Non- library Educational Services and Hospitals	1,090	1,120	30	2	4
Local Government, except Non- library Educational Services and Hospitals	7,650	8,290	650	8	9
Self-Employed/Unpaid Family Workers - Nonagricultural	15,380	16,680	1,300	8	10

Figure 33

*Calculated using unrounded numbers

Projected Job Openings by Occupational Category Southeast Minnesota 1986 - 1993

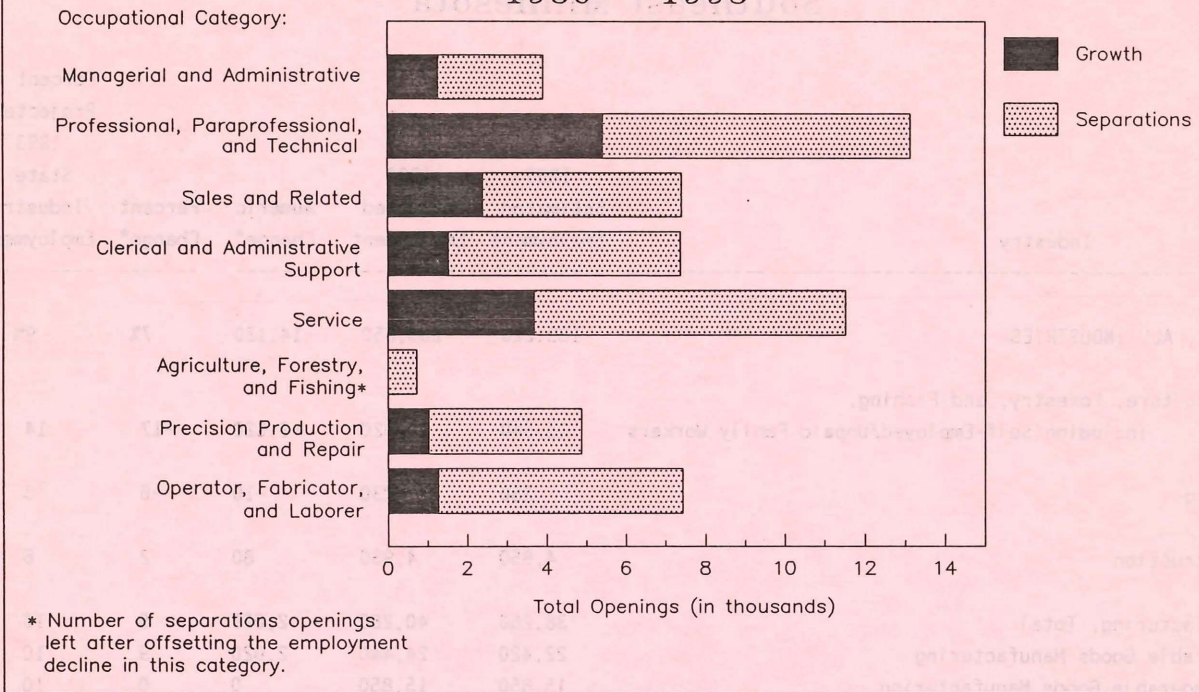


Figure 34

openings between 1986 and 1993 are expected to be found in the professional, paraprofessional, & technical, and service categories. (See Figure 34.) These, along with the sales & related and managerial & administrative categories are projected to grow faster than average and to employ larger shares of workers in 1993 than 1986. (See Figures 3, 35 and 38.)

Retail salespersons is the occupation projected to add the most workers; farmers and farm workers is expected to decline the most. (See Figures 36 and 37.) Reflecting the projected industry growth, medical-, business service- (some janitorial, clerical, & computer jobs) and retail-related (retail sales, and food & beverage) occupations will be in high demand in the upcoming years.

Employment in the managerial and administrative occupations category

is forecasted to grow faster than average. The most new jobs will occur for general managers and top executives.

Professional, paraprofessional, and technical is expected to be the fastest-growing of all the occupational categories. Of its subcategories, it is anticipated that health practitioners and technicians will experience the most job growth, and computer and mathematical occupations will be the fastest-growing.

Sales and related occupations is projected to add jobs at a faster than average rate. All three subcategories will share in this. In the retail and related subcategory, three of the occupations appear on the list of the 20 jobs projected to grow most.

The clerical and administrative support category is forecasted to

Employment Distribution by Occupational Category Southeast Minnesota 1986 and 1993

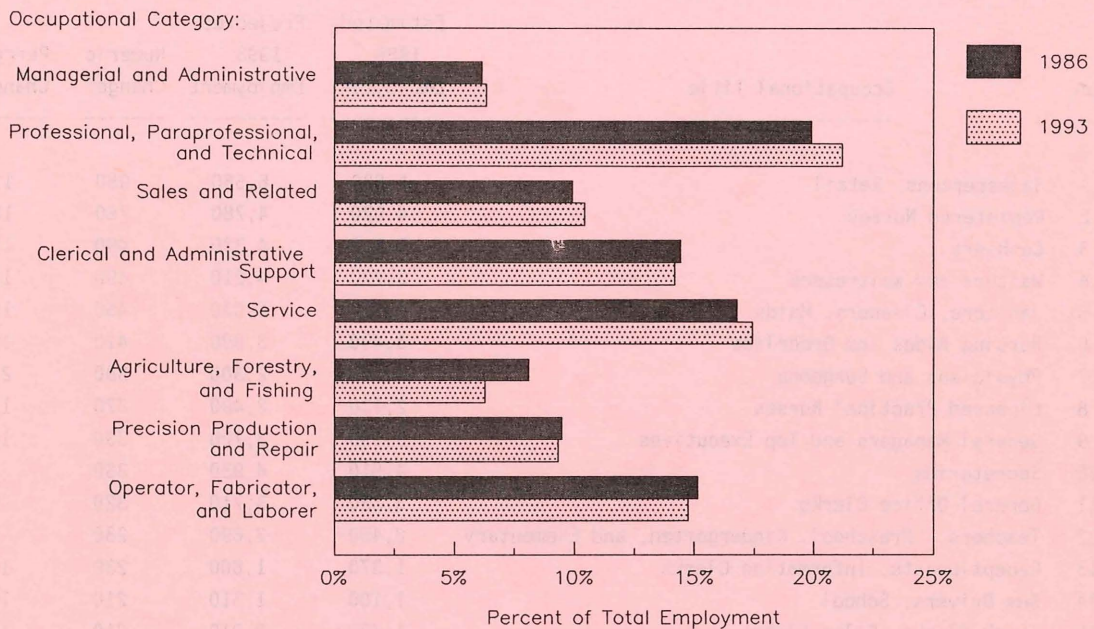


Figure 35

grow about average. While employment in some occupations will decline (mainly because of automation), significant numbers of new jobs for secretaries, general office clerks, and receptionists & information clerks will be generated, at rates expected to be at least as fast as average.

The number of jobs in the service occupational category is anticipated to grow faster than average. Food and beverage occupations will gain by far the most workers, followed by health service occupations.

In the agriculture, forestry, and fishing occupational category, 2,520 jobs are projected to be lost, almost all in farming. Gardeners and groundskeepers is expected to add a modest number of jobs.

The number of precision production and repair workers is forecasted to increase about average, with general

utility maintenance repairers and precision woodworkers being the two occupations growing the most.

Slower-than-average growth is projected for the operators, fabricators, and laborers category. The hand workers and nonprecision assemblers subcategory is expected to decline slightly. Truck drivers, school bus drivers, and precision electromechanical equipment assemblers are the three individual occupations anticipated to expand the most. This category encompasses five of the nine occupations projected to lose the most workers, automation being one key reason.

In the Southeast region, many more job openings are expected to arise from labor force separations than from employment growth. In total, 56,340 job openings are anticipated between 1986 and 1993, with 25 percent from growth and 75 percent from separations.

**Occupations with Largest Projected Employment Growth
1986 - 1993
Southeast Minnesota**

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Salespersons, Retail	5,630	6,580	950	17%
2	Registered Nurses	4,020	4,780	750	19
3	Cashiers	3,840	4,330	490	13
4	Waiters and Waitresses	3,720	4,210	490	13
5	Janitors, Cleaners, Maids	4,580	5,030	450	10
6	Nursing Aides and Orderlies	3,490	3,890	410	12
7	Physicians and Surgeons	1,910	2,300	390	21
8	Licensed Practical Nurses	2,130	2,490	370	17
9	General Managers and Top Executives	3,390	3,720	330	10
10	Secretaries	4,610	4,930	330	7
11	General Office Clerks	3,390	3,710	320	9
12	Teachers - Preschool, Kindergarten, and Elementary	2,460	2,690	230	9
13	Receptionists, Information Clerks	1,370	1,600	230	17
14	Bus Drivers, School	1,100	1,310	210	19
15	Stock Clerks, Sales Floor	1,790	2,010	210	12
16	Truck Drivers	3,640	3,850	210	6
17	Electrical and Electronic Engineers	840	1,040	200	24
18	Computer Programmers and Aides	1,000	1,190	190	19
19	Food Preparation Workers	1,930	2,120	190	10
20	Food Counter, Fountain and Related	2,180	2,370	180	8

Figure 36

**Occupations with Largest Projected Employment Decline
1986 - 1993
Southeast Minnesota**

Rank	Occupational Title	Estimated 1986 Employment	Projected 1993 Employment	Numeric Change*	Percent Change*
1	Farmers	9,880	8,520	-1,360	-14%
2	Farm Workers	3,450	2,390	-1,060	-31
3	Farm Managers	540	380	-160	-30
4	Electrical, Electronic Assemblers (Non-Precision)	610	490	-110	-18
5	Cannery Workers	800	710	-100	-12
6	Typists and Word Processors	1,260	1,170	-90	-7
7	Meat, Poultry, Fish Cutters	1,410	1,330	-80	-6
8	Industrial Truck and Tractor Operators	450	380	-70	-15
9	Dairy Processing Equipment Operators	270	230	-40	-13
10	Tellers	750	720	-30	-4
10	Data Entry Keyers, Except Composing	430	400	-30	-7

*Calculated using unrounded numbers

Figure 37

Employment Projections by Specific Occupation 1986 - 1993 Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
TOTAL, ALL OCCUPATIONS	189,220	203,350	7%	14,130	42,300	56,340
MANAGERIAL AND ADMINISTRATIVE OCC.	11,640	12,910	11	1,270	2,630	3,910
Financial Managers	1,040	1,120	8	80	180	270
Personnel, Training, Labor Rel.Mgr	250	270	6	20	40	60
Purchasing Managers	410	430	6	30	40	70
Marketing, Adv., Public Rel.Mgrs	630	700	11	70	110	180
Postmasters, Mail Superintendent	80	90	7	10	50	60
Education Administrators	330	350	7	20	60	80
Property, Real Estate Management	90	110	14	10	50	60
Food Service & Lodging Managers	710	800	13	90	180	270
Public Admin., Leg., Gen. Admin.	160	170	8	10	50	60
General Managers and Top Exec.	3,390	3,720	10	330	850	1,180
PROFESSIONAL, PARAPROFESS.,TECH.	37,720	43,140	14	5,430	7,710	13,130
MANAGEMENT SUPPORT OCCUPATIONS	4,120	4,540	10	420	810	1,230
Financial Specialists	1,520	1,710	13	190	280	470
Underwriters	130	150	13	20	10	20
Loan Officers and Counselors	100	100	4	0	20	30
Accountants and Auditors	1,290	1,460	13	170	250	420
Purchasing Agents and Buyers	550	570	4	20	90	110
Wholesale, Retail Buyers, Ex.Farm	300	300	2	10	40	50
Purchasing Agent Ex.Who/Ret/Farm	250	270	6	20	50	60
Personnel Specialists & Related	360	380	6	20	60	80
Personnel, Train.,Labor Rel. Spec	320	330	2	10	60	60
Other Management Support Occ.	1,690	1,880	11	190	380	570
Cost Estimators	230	250	8	20	20	40
Management Analysts	60	70	10	10	20	30
Construction, Building Inspector	80	80	7	10	40	50
Compliance & Enforce. Inspectors	130	150	19	20	30	50
ENGINEERS, ARCHITECTS, SURVEYORS	3,810	4,460	17	650	560	1,210
Engineers	1,910	2,290	20	380	270	650
Civil Engineers, Incl. Traffic	150	170	9	10	30	40
Electrical & Electronic Engineer	840	1,040	24	200	90	290
Industrial Engineers, Exc. Safety	330	390	19	60	60	120
Mechanical Engineers	340	410	18	60	60	120
Architects	130	140	12	20	20	40
Architects, Exc. Land. & Marine	100	110	9	10	10	20
Surveying and Mapping Scientists	70	80	6	0	10	20
Engineering Technicians	1,710	1,960	15	250	250	500
Electrical & Electronic Techns.	760	940	23	180	40	220
Drafters	490	500	2	10	110	110
NATURAL SCIENTISTS	630	660	5	30	120	150
Physical Scientists	170	170	2	0	30	30
Chemists, Except Biochemists	110	120	2	0	20	20
Life Scientists	190	210	9	20	40	50
Forester, Conservation Scientist	50	50	13	10	10	10
Agricultural and Food Scientists	60	70	13	10	10	20
Biological Scientists	50	50	4	0	10	10
Physical & Life Sci. Technicians	270	280	4	10	60	70
COMPUTER AND MATHEMATICAL OCC.	1,680	2,040	21	360	270	620
Computer and Related Occupations	1,620	1,970	22	350	260	610
Computer Systems Analysts, EDP	620	780	26	160	40	200
Computer Programmers & Aides	1,000	1,190	19	190	220	410
Mathematical and Related Occup.	60	70	12	10	10	10
SOCIAL SCIENTISTS,RECR.,RELIGION	2,130	2,490	16	350	580	920

Figure 38

Employment Projections by Specific Occupation 1986 - 1993 Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Social Scientists	280	340	19	50	40	90
Psychologists	210	250	22	50	40	80
Social, Recreation, Religion Occ	1,850	2,150	16	300	540	830
Social Service Technicians	240	300	24	60	40	100
Social Workers	920	1,100	19	180	210	390
Recreation Workers	300	330	11	30	100	130
Clergy	260	290	9	20	130	150
Directors, Religious Activ./Educ.	120	130	6	10	60	60
LAW AND RELATED OCCUPATIONS	970	1,100	14	130	290	420
Lawyers and Judges	820	910	11	90	270	360
Lawyers	790	880	11	90	260	350
Legal Assistants and Technicians	150	190	25	40	30	60
Paralegal Personnel	50	60	29	10	10	20
TEACHERS, LIBRARIANS, COUNSELORS	7,910	8,510	8	610	1,620	2,220
College and University Faculty	640	660	3	20	130	150
Teachers and Instructors	6,810	7,360	8	550	1,370	1,930
Teachers, Preschool, Kinder, Elem.	2,460	2,690	9	230	540	770
Teachers, Secondary School	2,130	2,260	6	140	320	460
Teachers, Vocational Education	240	270	13	30	70	100
Instructors, Nonvocational Educ.	290	320	11	30	80	120
Librarians, Archivists, Curators	460	500	8	40	110	140
Librarians, Professional	220	230	7	20	60	80
Technical Assistants, Library	80	90	4	0	20	20
Vocational & Educ. Counselors	150	160	11	20	20	40
HEALTH PRACTITIONERS, TECHNICIANS	13,130	15,590	19	2,460	2,770	5,220
Health Treating Practitioners	2,460	2,940	19	480	980	1,460
Physicians and Surgeons	1,910	2,300	21	390	760	1,150
Dentists	350	400	14	50	150	200
Optometrists	60	70	18	10	30	40
Veterinarians, Vet. Inspectors	130	150	18	20	30	50
Therapists	650	780	19	130	60	190
Respiratory Therapists	100	120	20	20	0	20
Occupational Therapists	90	120	26	20	10	30
Physical Therapists	190	240	26	50	20	70
Speech Pathologists, Audiologists	100	110	13	10	10	30
Recreation Therapists	110	130	14	20	10	20
Health Care Maintenance, Treating	7,240	8,530	18	1,290	1,130	2,430
Registered Nurses	4,020	4,780	19	750	660	1,410
Licensed Practical Nurses	2,130	2,490	17	370	270	640
Emergency Medical Technicians	180	200	14	30	20	50
Physician Assistants	300	360	20	60	10	80
Opticians, Dispensing & Measur.	190	230	22	40	50	90
Pharmacists	290	330	12	30	80	120
Dietitians and Nutritionists	100	110	10	10	30	40
Med. Technicians & Technologists	2,260	2,700	20	450	480	920
Dental Hygienists	180	230	28	50	10	60
Med. & Clinic Lab Tech. & Techno	1,240	1,390	12	150	270	430
Medical Records Techn. & Technol.	210	290	37	80	70	150
Radiologic Technol. & Technician	420	540	30	120	100	220
Surgical Technicians	130	150	19	20	10	40
Other Health Prof., Para, Tech	520	640	22	120	120	230
WRITER, ARTIST, ENTER., ATHLETE	1,720	1,890	10	170	340	530
Writers, Editors, Incl Technical	290	320	11	30	60	100
Public Relations Specialists	130	140	10	10	30	40
Radio & TV Accouncer & Newscast.	90	110	12	10	20	40
Reporters and Correspondents	110	120	13	10	30	40
Photographers	170	180	7	10	40	50
Camera Operators, TV & Movies	50	60	8	0	10	20
Designers	340	370	9	30	70	100
Artists and Related Workers	270	290	10	30	40	60

Figure 38 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Musicians	190	200	9	20	40	60
OTHER PROF., PARAPROF., TECHN.	1,610	1,860	15	250	350	600
SALES AND RELATED OCCUPATIONS	18,800	21,210	13	2,410	4,990	7,390
SALES OCCUPATIONS, SERVICES	1,580	1,800	14	220	550	780
Insurance Sales Workers	740	830	11	80	240	320
Brokers, Real Estate	60	60	11	10	20	30
Sales Agents, Real Estate	470	540	15	70	190	260
Securities, Financial Serv. Sales	100	120	21	20	30	50
Travel Agents	180	220	21	40	60	100
SALES OCC., RETAIL AND RELATED	11,500	13,170	15	1,670	3,190	4,850
Salespersons, Retail	5,630	6,580	17	950	1,880	2,830
Counter and Rental Clerks	240	260	7	20	60	80
Stock Clerks, Sales Floor	1,790	2,010	12	210	570	780
Cashiers	3,840	4,330	13	490	670	1,160
OTHER SALES & RELATED OCC.***	5,720	6,240	9	520	1,250	1,760
CLERICAL & ADMIN. SUPPORT OCC.	27,330	28,860	6	1,540	5,860	7,370
FIRST LINE SUPERVISORS, CLERICAL	1,380	1,490	8	110	260	370
INDUSTRY SPECIFIC SUPPORT OCC.	3,850	4,070	6	220	660	860
Banking, Security, Finance, Credit	1,480	1,480	0	0	180	180
Tellers	750	720	-4	-30	60	30
New Accounts Clerks	160	160	1	0	30	30
Loan and Credit Clerks	210	210	1	0	40	40
Adjustment Clerks	230	250	11	20	40	60
Statement Clerks	60	70	3	0	10	10
Records Processing Occ. Exc. Finan	2,370	2,600	9	220	480	690
Insurance Adjusters, Investigator	120	140	16	20	10	40
Insurance Claims Clerks	90	90	7	10	10	20
Insurance Policy Process. Clerks	150	140	-3	0	20	10
Welfare Eligibility Workers	160	170	9	10	10	30
Bill and Account Collectors	130	160	17	20	30	50
Court Clerks	60	60	15	10	10	10
Municipal Clerks	80	90	9	10	10	20
Hotel Desk Clerks	180	190	5	10	60	60
Library Assistants & Bookmobile	150	160	7	10	30	40
Teacher Aides & Educ. Assistants	1,140	1,250	10	110	250	360
SECRETARIES	4,610	4,930	7	330	990	1,320
GENERAL OFFICE OCCUPATIONS	11,780	12,400	5	620	2,880	3,510
Stenographers	160	150	-1	0	40	40
Receptionists, Information Clerks	1,370	1,600	17	230	320	550
Typists and Word Processors	1,260	1,170	-7	-90	250	170
Personnel Clerks, Except Payroll	130	140	3	0	20	30
File Clerks	310	330	6	20	60	80
Order Clerks: Materials, Service	360	380	5	20	70	90
Procurement Clerks	60	60	-2	0	10	10
Statistical Clerks	100	90	-4	0	20	10
Interviewing Clerks, Ex. Personnel	150	180	17	30	40	60
Customer Service Reps, Utilities	50	50	0	0	10	10
Bookkeeping & Accounting Clerks	3,680	3,780	3	100	980	1,080
Payroll and Timekeeping Clerks	270	270	-2	-10	60	50
Billing, Cost and Rate Clerks	500	510	2	10	80	90
General Office Clerks	3,390	3,710	9	320	920	1,240

Figure 38 (cont.)

Employment Projections by Specific Occupation
1986 - 1993
Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
DATA PROCESSING, OFFICE MACHINES	1,210	1,230	2	20	100	120
Bill., Post, Calculating Mach.Op	180	190	3	10	20	30
Computer Operators, Exc. Periph.	360	400	10	40	10	50
Peripheral EDP Equip. Operators	70	80	13	10	10	10
Data Entry Keyers, Ex. Composing	430	400	-7	-30	20	-10
Dupl., Mail, & Other Office Equ.	150	150	1	0	40	40
COMMUNICATIONS EQUIP. OPERATORS	450	470	5	20	110	130
Switchboard Operators	380	410	7	30	100	130
Central Office Operators	60	60	-8	-10	10	10
MAIL & MESSAGE DISTRIB. WORKER	570	610	6	30	170	200
Mail Clerks, Exc. Mail Machine	160	170	5	10	40	50
Postal Mail Carriers	310	340	7	20	90	110
Postal Service Clerks	50	50	6	0	10	10
Messengers	50	50	-2	0	20	20
MATERIAL RECORD., SCHED., DISTRIB	2,910	3,040	4	130	560	690
Dispatcher:Police, Fire, Ambulance	90	100	9	10	10	20
Dispatchers: Exc. Pol.,Fire,Amb.	180	190	8	10	40	50
Production, Expediting Clerks	370	390	5	20	60	80
Meter Readers, Utilities	80	80	-1	0	20	20
Weighers, Measurers, Checkers	50	50	2	0	10	10
Stock Clerks:Stockroom Or Wareh.	890	890	1	10	180	180
Order Fillers, Sales	250	260	4	10	50	60
Traffic, Shipping, & Rec. Clerks	780	820	6	40	140	180
OTHER CLERICAL & ADM.SUPPORT	580	630	8	50	130	180
SERVICE OCCUPATIONS	31,770	35,460	12	3,690	7,830	11,510
FIRST LINE SUPERVISORS, SERVICE	410	460	12	50	310	360
Police and Detective Supervisors	170	190	14	20	30	50
Housekeepers, Institutional	210	230	11	20	270	290
PRIVATE HOUSEHOLD OCCUPATIONS	980	1,050	7	70	570	640
Housekeepers and Butlers	120	130	8	10	30	40
Child Care Wkrs., Pvt. Household	480	520	7	30	110	140
Cleaners & Servants, Pvt. House.	360	390	7	30	430	460
PROTECTIVE SERVICE OCCUPATIONS	1,690	1,910	13	220	390	600
Fire Fighters	240	260	10	20	40	60
Police Detectives & Investigator	50	60	13	10	10	20
Police Patrol Officers	500	550	11	50	40	100
Correction Officers and Jailers	190	240	30	60	20	80
Guards and Watch Guards	380	420	11	40	180	220
FOOD AND BEVERAGE OCCUPATIONS	13,900	15,460	11	1,570	3,160	4,720
Hosts & Hostesses: Rest., Lounge	420	480	12	50	120	170
Bartenders	900	1,000	12	110	210	320
Waiters and Waitresses	3,720	4,210	13	490	460	950
Dining Room & Bartender Helpers	790	900	13	110	80	190
Bakers, Bread and Pastry	460	550	19	90	160	250
Cooks, Restaurant	1,080	1,220	13	140	360	510
Cooks, Institution or Cafeteria	820	880	8	60	270	330
Cooks, Fast Food and Short Order	1,120	1,210	8	90	250	340
Food Preparation Workers	1,930	2,120	10	190	670	850
Food Counter, Fountain & Related	2,180	2,370	8	180	480	660
HEALTH SERVICE OCCUPATIONS	5,360	6,100	14	730	1,300	2,040
Dental Assistants	300	380	25	80	30	110
Medical Assistants	430	550	28	120	110	220
Nursing Aides and Orderlies	3,490	3,890	12	410	810	1,220

Figure 38 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Home Health Aides	230	270	19	40	90	130
Psychiatric Aides	360	350	(1)	0	80	80
Physical, Correct. Therapy Assist	130	170	29	40	40	70
Occupational Therapy Assistants	70	80	18	10	10	30
Pharmacy Assistants	130	150	11	20	30	40
CLEANING & BUILDING SERVICE OCC.	5,070	5,560	10			
Janitors, Cleaners, Maids	4,580	5,030	10	450	1,110	1,600
PERSONAL SERVICE OCCUPATIONS	3,310	3,710	12	400	780	1,170
Barbers	220	230	8	20	120	130
Hairdressers and Cosmetologists	1,260	1,390	11	140	270	410
Amusement & Recreation Attendant	440	490	10	50	80	130
Social Welfare Service Aides	110	130	22	20	40	60
Child Care Workers	1,210	1,390	15	180	250	430
OTHER SERVICE WORKERS	1,040	1,200	15	160	230	390
AGRICULTURE, FORESTRY, FISHING	15,330	12,810	-16	-2,520	3,250	740
FARM OPERATORS AND MANAGERS	10,420	8,900	-15	-1,520	2,170	640
Farmers	9,880	8,520	-14	-1,360	1,920	550
Farm Managers	540	380	-30	-160	250	90
SUPERVISORS, FARM, FOREST, AG. REL	120	100	-13	-20	20	10
FORESTRY AND LOGGING OCCUPATIONS	170	150	-9	-20	30	10
Fallers and Buckers	60	50	-14	-10	10	10
Log Handling Equipment Operators	70	60	-12	-10	10	10
FARM WORKERS	3,450	2,390	-31	-1,060	610	-450
OTHER AGRIC., FOREST, FISH.	1,180	1,270	8	90	420	520
Nursery Workers	60	50	-15	-10	20	10
Gardeners and Groundskeepers	660	750	15	100	300	400
Animal Caretakers, Except Farm	130	140	8	10	30	40
PRECISION PRODUCTION AND REPAIR	17,950	18,990	6	1,040	3,860	4,880
BLUE COLLAR WORKER SUPERVISORS	2,350	2,480	6	130	500	640
MECHANICS, INSTALLERS, REPAIRERS	6,060	6,380	5	320	1,230	1,540
Industrial Machinery Mechanics	540	560	5	30	110	140
Millwrights	80	80	9	10	10	20
Maintenance Repairers, Gen. Util.	1,330	1,440	8	110	290	410
Vehicle & Mobile Equip. Mechanic	2,370	2,480	4	110	380	480
Automotive Mechanics	1,260	1,330	5	70	210	280
Automotive Body, Related Repairer	380	400	3	10	50	60
Bus, Truck, Diesel Eng. Mechanic	370	390	6	20	50	70
Mobile Heavy Equipment Mechanics	140	150	7	10	20	30
Farm Equipment Mechanics	130	120	-7	-10	30	20
Communications Equip. Mechanics	150	140	-7	-10	30	10
Central Office & PBX Instal/Rpr.	110	100	-10	-10	20	10
Electrical & Electronic Eq. Mech.	590	620	6	40	90	130
Telephone & Cable TV Instal/Rpr.	110	110	-4	-10	0	-10
Home Entertainment Eq. Repairers	80	90	12	10	20	30
Home Appli. & Power Tool Repairer	160	160	4	10	40	40
Electrical Powerline Instal/Rpr.	130	140	7	10	20	30
Other Mechanics, Installers, Rep	1,010	1,060	5	50	320	360
Heating, A/C, Refrig. Mechanics	280	290	4	10	50	60
Precision Instrument Repairers	80	90	9	10	70	80
Office Machine, Register Servicer	80	80	4	0	10	10

Figure 38 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Tire Repairers and Changers	100	110	5	10	20	30
CONSTRUCTION TRADES, EXTRACTIVE	4,670	4,940	6	260	970	1,230
Construction Workers	4,580	4,830	6	260	950	1,200
Carpenters	1,570	1,650	5	80	340	410
Drywall Installers & Finishers	140	150	10	10	30	40
Electricians	550	570	3	20	100	120
Bricklayers and Stone Masons	190	200	6	10	40	60
Concrete and Terrazzo Finishers	120	120	2	0	10	10
Struct. & Reinforce. Metal Worker	70	70	10	10	10	20
Painters and Paperhangers	450	480	7	30	130	160
Plumber, Pipefitter, Steamfitter	510	530	4	20	120	140
Pipelayers & Pipelaying Fitters	50	60	6	0	10	10
Carpet Installers	130	140	13	20	10	30
Paving, Surfacing, Tamping	60	70	5	0	0	0
Highway Maintenance Workers	330	360	8	30	70	100
Insulation Workers	50	60	10	10	10	10
Roofers	100	110	8	10	10	10
Extractive and Blasting Workers	100	100	5	10	20	30
PRECISION PRODUCTION OCCUPATIONS	4,330	4,620	7	290	1,040	1,320
Precision Metal Workers	1,470	1,570	7	100	290	390
Tool and Die Makers	240	280	15	40	60	90
Machinists	510	530	5	20	90	110
Jewelers and Silversmiths	70	80	7	10	30	40
Sheet Metal Workers	480	510	6	30	80	110
Precision Woodworkers	480	580	20	100	110	210
Precision Textile, Apparel, Furn	420	450	6	30	220	250
Custom Tailors and Sewers	170	180	7	10	120	130
Upholsterers	130	140	8	10	60	70
Precision Printing Workers	200	230	17	30	40	70
Job Printers	70	80	18	10	10	20
Precision Lithographers & Photo.	80	110	25	20	20	40
Precision Food Workers	1,410	1,410	-1	-10	300	290
Butchers and Meatcutters	1,230	1,220	0	0	250	250
Bakers, Manufacturing	60	60	5	0	20	20
Other Precision Workers	350	390	11	40	80	110
Dental Laboratory Technicians	70	80	13	10	10	20
PLANT & SYSTEM OCCUPATIONS	530	570	6	30	120	150
Water & Waste Treat. Plant Oper.	170	190	10	20	40	60
Stationary Engineers	120	120	0	0	40	40
Power & Reactor Plant Operators	80	90	8	10	10	20
OPERATOR, FABRICATOR AND LABORER	28,690	29,970	4	1,280	6,170	7,430
INSPECTORS & RELATED OCCUPATIONS	930	1,000	8	70	200	270
MACH.SET.,SET-UP OP.,OPER.& TEND	7,400	7,850	6	450	1,650	2,080
Metal & Plas. Mach. Set/Ops/Tend	2,270	2,510	10	240	410	640
Lathe,Turning Mach.Setter/Op,M/P	90	90	7	10	10	10
Drilling,Boring Mach.Set/Op.,M/P	90	80	-2	0	10	10
Grinding,Buffering Mach.Set/Op.M/P	110	120	9	10	20	30
Machine Tool Cutting Oper., M/P	160	160	3	0	20	30
Punching Mach. Setter/Oper., M/P	170	190	9	20	30	40
Machine Forming Operators, M/P	240	250	5	10	40	50
Numerical Control Mach.Tool, M/P	130	150	19	30	10	40
Combin. Mach.Tool Set/Oper. M/P	140	160	18	20	30	50
Welding Machine Set/Ops/Tenders	280	300	5	10	60	80
Metal Molding Mach.Ops/Tend/Set	50	60	17	10	10	20
Electrolytic Plating Mach.Opers.	80	90	13	10	10	20
Plastic Molding, Casting Oper.	230	290	26	60	60	120
Woodworking Machine Setters, Op.	270	310	15	40	60	100

Figure 38 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings** 1986-1993*
Head Sawyers & Saw Mach.Opr/Tend	110	130	14	20	20	40
Woodworking Machine Operators	160	180	16	30	40	60
Printing, Binding, & Related Occ	610	730	20	120	130	250
Offset Lithographic Press Setter	70	90	28	20	10	40
Letterpress Setter/Operator	50	50	9	0	10	10
Screen Printing Mach. Setter/Op.	50	60	26	10	10	30
Bindery Mach. Operators/Set/Tend	100	120	28	30	20	50
Typesetting Mach. Operator/Tend.	70	70	7	10	10	10
Printing Press Mach.Ops/Set/Tend	190	220	18	30	40	80
Textile Mach.Operators & Related	1,300	1,290	0	0	410	410
Text.Drawout & Wind.Mach.Ops/Set	210	200	-4	-10	40	40
Sewing Mach. Operator, Garment	330	320	-3	-10	120	110
Sewing Mach. Oper., Non-Garment	130	140	8	10	50	60
Shoe Sewing Machine Operator	140	130	-3	0	20	10
Laundry, Drycleaning Mach. Oper.	350	360	3	10	150	160
Pressing Mach.Operator, Textiles	70	70	-9	-10	20	10
Other Mach. Set,Operators,Tender	2,960	3,000	2	50	640	690
Photographic Processing Mach.Op.	80	80	7	10	10	10
Cooking Machine Oper., Food/Tob.	110	90	-17	-20	20	0
Furnace, Kiln, Oven, Kettle Oper.	170	190	9	20	60	70
Low Pressure Boiler Operator	70	60	-5	0	20	20
Dairy Processing Equip. Operator	270	230	-13	-40	40	10
Cutting & Slicing Mach. Set/Ops	260	280	10	30	60	80
Cementing & Gluing Machine Oper.	60	70	6	0	10	10
Painting Machine Operators	260	290	9	20	60	80
Crushing & Mixing Machine Oper.	420	440	5	20	70	90
Extruding & Forming Mach.Set/Ops	150	160	5	10	40	40
Packaging & Filling Machine Oper.	570	570	-1	0	160	150
HAND WORKING OCC., INC. ASSEMBLER	8,080	8,250	2	170	1,570	1,740
Precision Assemblers	1,420	1,600	13	190	230	420
Machine Builders - Precision	70	70	-4	0	10	10
Electromech. Eq. Assembler -Prec.	1,040	1,200	15	160	180	340
Electric.,Electronic Assembler-Prec	260	290	13	30	30	60
Other Hand Workers & Assemblers	6,670	6,650	0	-20	1,340	1,320
Machine Assemblers	60	70	8	10	10	20
Electrical, Electronic Assembler	610	490	-18	-110	90	-20
Coil Winders, Tapers, Finishers	60	70	8	10	10	10
Welders and Cutters	600	570	-4	-30	80	60
Solderers and Brazers	50	70	27	10	10	20
Sewers, Hand	60	60	-9	-10	40	30
Cutters and Trimmers, Hand	80	100	23	20	20	40
Cannery Workers	800	710	-12	-100	110	10
Meat, Poultry, Fish Cutters	1,410	1,330	-6	-80	320	240
Painting and Coating, Hand	50	50	9	0	10	20
Grinding and Polishing, Hand	150	170	9	10	50	60
TRANSP. & MAT. MOVING MACH.OPER.	7,280	7,720	6	440	1,650	2,080
Motor Vehicle Operators	5,410	5,880	9	470	1,290	1,760
Truck Drivers	3,640	3,850	6	210	780	990
Bus Drivers	100	130	29	30	40	60
Bus Drivers, School	1,100	1,310	19	210	350	570
Taxi Drivers and Chauffeurs	180	200	10	20	80	100
Driver/Sales Workers	360	350	-2	-10	40	40
Rail Transportation Workers	70	50	-28	-20	10	-10
Water and Air Transp. Workers	50	50	0	0	0	-10
Material Moving Equipment Oper.	1,130	1,090	-4	-50	220	170
Excavation Loading Machine Oper.	120	120	3	0	20	30
Grader, Dozer, Scraper Operators	160	160	2	0	70	70
Industrial Truck & Tractor Oper.	450	380	-15	-70	50	-20
Operating Engineers	200	210	4	10	40	40
Other Transp., Mat.Moving Opr	630	660	6	40	130	170
Service Station Attendants	410	430	5	20	80	110

Figure 38 (cont.)

Employment Projections by Specific Occupation 1986 - 1993 Southeast Minnesota

Occupational Title	1986 Estimated Employment	1993 Projected Employment	Percent Change*	Numeric Change*	Labor Force Separations	Total Openings**
						1986-1993*
HELPER, LABORER, MAT.MOVER, HAND	4,990	5,150	3	160	1,110	1,260
Construction Trades Helpers	390	390	2	10	80	90
Machine Feeders and Offbearers	230	260	12	30	40	60
Hand Freight, Stock, Mat. Movers	2,440	2,520	4	90	580	670
Refuse Collectors	90	100	7	10	30	40
Freight & Material Movers, Hand	920	930	1	10	200	200
Hand Packers and Packagers	1,180	1,250	6	70	320	380
Vehicle, Equipment Cleaners	240	250	4	10	40	50
Other Helper, Laborer, Mover	1,940	1,980	2	40	410	440

*Calculated using unrounded numbers

**Total Openings includes openings due to growth or decline (numeric change between 1993 and 1986 employment), plus openings from labor force separations (workers who retire, die, or leave the labor force for other reasons, such as disability or family responsibilities). This does not include openings that are the result of workers changing occupations or geographic location.

***Sales Supervisors, Sales Engineers, and Sales Representatives

NOTE: Those occupations which employed less than 50 people in 1986 have been left out of this table, as well as those "All Other" occupations which were on a detail level, such as "All Other Managers and Administrators".

Figure 38 (cont.)

Appendix



Methodology

Regional employment for 1993 was derived from statewide projections for key industries. Projected statewide key industry employment was distributed by region and specific industry, and then anticipated staffing patterns (the distributions of occupations within industries) were applied to produce occupational projections. The following provides more detail and gives differences from our previous set of projections.

Sources:

Industry projections are based on a number of sources. The monthly Current Employment Statistics (CES) program figures, which include both employment covered by the Minnesota Unemployment Insurance Law and estimates of wage and salary workers not covered under this law, were used as a starting point for the time series of Minnesota employment. To this were added estimates of workers involved in labor disputes, agricultural workers, the self-employed, and private household workers. Estimates for workers excluded from wage and salary (CES) employment because of labor disputes came from ES-228 strike reports. Estimates of agricultural workers were based on updates to the 1980 Minnesota Census. Estimates of self-employed and private household workers came from the Bureau of Labor Statistic's Current Population Survey (CPS).

Besides the series on Minnesota employment, other independent variables were used in the regression

models. Other state-specific data were obtained from state agencies and from publications by various U.S. government agencies. A time series of detailed national employment was obtained from various BLS publications. Future projections of the independent variables came from the BLS and the Bureau of Economic Analysis (BEA), U.S. Department of Commerce.

For federal government and postal service employment, occupational staffing patterns specific to the five regions were used. In all other industries, the staffing patterns used were statewide ones. Statewide Occupational Employment Statistics (OES) program surveys from 1984, 1985, and 1986 were used to develop staffing patterns for industries covered by these surveys. National staffing patterns or patterns from earlier OES surveys were used when the staffing pattern for an industry was missing or poor due to low survey response. Federal government and postal employment staffing patterns were provided by the BLS. Results of the 1980 U.S. Census were used to develop staffing patterns for agriculture, forestry, and fishing; private households; and agricultural and nonagricultural self-employed and unpaid family workers. National occupational change factors and Minnesota separation rates were furnished by the BLS.

BLS interpretations of national employment projections were used to help with projections analysis.*

*Monthly Labor Review, U.S. Department of Labor, Bureau of Labor Statistics, September 1987.

Parameters and Assumptions:

These 1993 employment projections were made for the medium-term (seven years.) They are not short-term demand-based forecasts which pay close attention to cyclical variations, nor are they long-term economic growth models governed predominantly by supply-side considerations. One reason for projecting forward seven years is that this approximates one business cycle. While cyclical variation may occur over the term of the projections, it is assumed it will not exert a major influence on the 1993 projections.

These projections are essentially estimates of future employment demand. The overall total was not forced to match a particular labor force projection at an assumed unemployment rate. We do recognize, however, that the size of the labor force does exert influence in the medium-term. Parameters were set within which total state projected employment had to fall, based on a range of population projections, a range of possible labor force participation rates, and a range of unemployment rates one business cycle into the future. The final projections ended up near the upper limit of the ranges, which assumed an annual population growth rate of 0.96 percent, a labor force participation rate of 72.6 percent in 1993 (in 1986 it was 70.5), and an unemployment rate in 1993 of 4.0 percent (compared to a 1986 rate of 5.3%).

Other parameters had to be followed and certain assumptions had to be

made as well. The main ones include:

- rates of multiple job holding and interstate commuting will remain constant
- no catastrophe or major economic event will occur to significantly alter the basic industrial structure of the United States or Minnesota economies
- current occupational trends will not be radically altered by unforeseen changes in technology, science, man-hour productivity, social trends, or the demand for Minnesota-produced products
- shifts will occur in consumption and investment patterns
- productivity will increase, allowing production to expand without corresponding job gains
- labor force growth will slow
- the unemployment rate will decline moderately

The BLS made the last four assumptions in projecting national employment to 2000*. They are applicable here because national projections were important inputs into our models.

Calculation of Industry Projections:

The methods used to project industry employment were those suggested in A Guide for Developing Industry and Occupational Employment Projections for States and Areas, which was the result of a joint effort by the National Occupational Information Coordinating Committee (NOICC), the Interstate Conference of Employment Security Agencies

*Projections 2000, U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2302, March 1988.

(ICESA) and the National Governors' Association (NGA), with the assistance of the BLS, which performs such work at the national level.

Industry projections were produced in two main parts. First, 65 key industry groups were chosen, based on their importance to the Minnesota economy, and regression models were developed to project statewide employment for them. For the most part, these groups were detailed to two-digits of the Standard Industry Code (SIC). (In a few cases they were more detailed; in a few cases, less detailed.) These employment estimates were shared out to the regions and to more detailed industry levels in order to project occupational employment.

The main steps included:

1. Calculating base year (1986) total employment at a state-wide level for all projected industries. Information for this came from the various sources listed above.
2. Developing a historical series of wage and salary employment by industry for the key industries from 1972 to 1987, using CES employment figures corrected for labor disputes.
3. Developing a national historical series for key and related industries and a historical series on pertinent Minnesota variables, such as population and personal income, for which projections had been developed elsewhere.
4. Developing regression models for the key industries.
5. Developing a historical series from 1976 to 1986 of covered employment by three-digit industry at the state level.
6. Sharing out the key industries' projected employment to a more detailed industry level (for the most part, a three-digit SIC level). Detailed industry proportions of the key industry totals for 1993 were calculated by extrapolating into the future the long term trend of the detailed industry's share of employment in its group. (Each of the 65 key industries comprised one group). These detailed projections were then summarized to two-digit SIC levels so that they could be divided by region.
7. Developing a historical series of covered two-digit industry employment by planning region.
8. Sharing out the statewide industry employment (by two-digit SIC) to the six regions, by extrapolating into the future the long term trend of each region's share of the state industry employment.
9. Dividing the regional two-digit employment into detailed levels (usually three-digit) which were proportional to their 1986 distribution, then doing some adjusting so the total of the six regions equaled the state total for each detailed industry.

Calculation of Occupational Projections:

Occupational projections to 1993 were prepared using basically the same methodology used in the former census-based occupational projections, taken from Tomorrow's Manpower Needs, BLS Bulletin No.

1606, and its supplements. Calculations were performed using the Microcomputer Industry/Occupations Matrix processing system developed by NOICC, ICESA, and the Utah Department of Employment Security.

The main steps in preparing the occupational projections included:

1. Determining an occupational staffing pattern for each industry as described above under "Sources".
2. Creating a base year matrix. The staffing pattern of each industry was proportionally adjusted to its base year employment and adjusted as follows. Data was summarized where necessary because of differences in Census and OES coding of occupations, employment was added to some occupations that were not on all OES survey forms, and other adjustments were made as appropriate. When completed, within each industry, total employment of all occupations equaled the base year (1986) employment.
3. Developing a projected year matrix. National change factors, corresponding to occupations in specific industries, were used. Where no national change factor existed, a change factor of 1.0 (representing no change) was used. For each industry, employment by occupation was then adjusted proportionally to equal projected year (1993) employment.
4. Developing a total openings figure for each occupation in each industry. Total openings is the sum of total growth plus total labor force separations. Total growth is simply 1993

employment minus 1986 employment. Total separations (the number leaving the labor force due to death, retirement, or other causes) is the average of 1986 and 1993 employment times the separation rate for the occupation. Separation rates were calculated from national rates using the state-specific age and sex distribution for each occupation. National rates are based upon working life tables developed by the BLS.

5. Calculating totals for each occupation across all industries and other pertinent totals.

Comparison with Past Projections:

The first major difference in methodology from the last round of projections is that the labor force projections comprise a wider range of parameters within which total projected industry employment had to fall.

A second major difference is that fewer industries were projected using regression models than previously because of deadline considerations. Instead of modeling the detailed industries, as was done last time, only key industries were modeled and their employment then shared out to more detailed levels.

The third major difference lies in how the industries were grouped. This time they were grouped so that statewide OES staffing pattern estimates could be applied rather than U.S. Census-based staffing pattern estimates, as were used in the last round. This change in the source of occupational staffing patterns for the industries

necessitated three major changes:

a. Self-employed and unpaid family workers are treated as two industries (agricultural self-employed/unpaid family workers and nonagricultural self-employed/unpaid family workers). This contrasts with the Census-based projections where self-employed and unpaid family workers were included in the staffing patterns of the industries related to their activities. Thus, a self-employed carpenter and his wife who did the bookkeeping for no pay would both have been considered employees in the construction industry under Census-based projections but are not under OES-based projections.

b. Government employment includes postal and non-postal federal government employment, state government employment except in hospitals and non-library educational services, and local government employment except in hospitals and non-library educational services. State and local government hospital employment is combined with private hospital employment. Likewise, non-library state and local government educational services employment is included with private educational services employment. Compared to Census-based occupational projections, these OES-based projections have more employment assigned to government. In-

creased government employment is reflected in lower employment in such industries as construction, transportation, utilities, and trade as employment for state or county highway and road maintenance, the Postal Service, city gas or electric companies, and municipal liquor stores is no longer reported in these industrial sectors.

c. These projections are for the number of jobs, both full- and part-time, based on place of work. The Census counts the number of working people, by place of residence. The two counts differ to the extent that people commute to work across state or region lines and/or hold multiple jobs. OES-based estimates count a person who holds two jobs twice; the Census counts that person only once.

A fourth major difference lies in the sub-state groupings of counties. In the last round, outstate projections were made for the original eight Service Delivery Areas (SDA's) outside the Twin Cities area. This time, Greater Minnesota projections have been grouped into five regions. The Northeast region includes the original SDA's 3 and 4. Northwest Minnesota contains SDA's 1 and 2. Central Minnesota covers the same territory as SDA 5. The Southwest region includes SDA's 6 and 7, and Southeast Minnesota is the same as SDA 8.

Suggested Ways to Use Projections Data

There are various ways to use industry and occupational employment projections, depending on the user's needs. Projections are effective in showing areas of growth or decline and the relative magnitude of such; they are also valuable when looked at along with other types of data.

Industry growth and the distribution of industries can be compared across different areas: The state of Minnesota, regions within Minnesota, and the United States. Industries can also be compared to each other within the same area, in terms of size, percentage growth, or growth in numbers.

Occupational projections can also be compared across areas. When using occupational projections data alone, the occupations can be ranked in a number of ways, for example, by percentage growth, numeric growth, total openings, or

some kind of combination of these. However, because these projections show only the demand for occupations, it is more useful to look at them with other types of data, such as occupational supply, and skill and educational requirements. With other attributes, a multitude of additional things can be examined. For example, by combining annual openings with annual completers or graduates, potential occupational shortages and surpluses can be spotted. By using information on the amount of education required, the demand for various levels of education can be estimated.

In this publication, thus far, we have presented some of the most common ways of looking at projections - some graphic comparisons and rankings by growth. Following are four other examples of ways to use these projections. Some require data from other sources.

Example 1:

Comparison of Industry Projections from 1986 to 1993 for Central Minnesota and Minnesota Statewide						
INDUSTRY	1986 ESTIMATED EMPLOYMENT		1993 ESTIMATED EMPLOYMENT		PROJECTED PERCENT CHANGE*	
	CENTRAL	MN	CENTRAL	MN	CENTRAL	MN
TOTAL, ALL INDUSTRIES	180,680	2,127,080	204,720	2,369,180	13%	11%
Agriculture, Forestry, and Fishing, including Self-Employed Farm Workers	19,410	101,890	17,220	89,460	-11	-12
Mining	250	7,320	270	6,940	9	-5
Construction	7,740	74,890	8,900	83,080	15	11
Manufacturing, Total	28,500	368,830	32,050	399,910	12	8
Transportation, Communication, and Public Utilities	7,000	98,080	7,740	103,900	11	6
Trade, Total	40,600	470,740	48,630	534,650	20	14
Finance, Insurance and Real Estate	4,770	116,350	5,350	131,580	12	13
Services, Total	44,590	592,630	53,600	694,820	20	17
Government, Total	10,640	139,450	11,860	151,550	11	9
Self-Employed/Unpaid Family Workers - Nonagricultural	17,180	156,910	19,100	173,290	11	10

*Computed on unrounded numbers

This is a comparison of projections for Central Minnesota and Minnesota statewide. Both areas' projections were for the same time period. If they would have been for two different projection periods, computing an annual percent change would have been necessary.

Example 2:

Northwest Minnesota Occupational Employment Ranking Using Equal Weights of Numeric Growth and Percentage Change Rankings, 1986-1993								
COMBINED RANKING	OCCUPATIONAL TITLE	1986 ESTIMATED EMPLOYMENT	1993 PROJECTED EMPLOYMENT	NUMERIC CHANGE	MOST GROWTH RANKING	PERCENT CHANGE	FASTEST GROWTH RANKING	SUM OF RANKINGS
1	Precision Woodworkers	910	1,310	390	6	43	1	7
2	Head Sawyers & Saw Mach.Opr/Tend	220	300	80	39	36	2	41
3	Dental Assistants	290	380	90	37	29	7	44
4	Machine Feeders and Offbearers	290	370	80	42	26	12	54
5	Waiters and Waitresses	3,880	4,430	550	2	14	55	57
6	Dental Hygienists	170	220	50	54	32	4	58
7	Bakers, Bread and Pastry	480	570	90	35	19	29	64
8	Salespersons, Retail	4,870	5,520	650	1	13	65	66
9	Receptionists, Information Clerks	870	1,010	140	26	16	41	67
10	Physical, Correct. Therapy Assist	120	160	40	65	33	3	68
10	Physical Therapists	140	180	40	63	30	5	68
12	Cooks, Restaurant	1,130	1,290	170	21	15	48	69
13	Bartenders	1,010	1,150	140	24	14	53	77
14	Teachers, Vocational Education	490	570	80	39	16	39	78
14	Physicians and Surgeons	570	660	90	36	15	42	78
14	Dining Room & Bartender Helpers	840	960	120	28	14	50	78

Numeric change and percent change are weighted equally in this ranking. For this, all occupations were ranked both ways, then the two rankings were summed for each occupation. The summed rankings were sorted from lowest to highest to get the combined ranking. Where the sums were equal, they were given the same combined ranking (i.e., both physical/corrective therapy assistants and physical therapists were given a combined ranking of 10). The sixteen occupations with the lowest sums, thus the highest ranking, are listed.

Significance: The user of occupational projections is often tempted to identify the fastest-growing occupations and ignore the size of the occupation. For purposes of job availability, this is dangerous, for while an occupation may indeed be growing very quickly, there may only be a limited number of people employed in the area. This is often the case in a high-tech occupation. By combining the growth rate with the numeric change, we have an indicator of projected rapid growth as well as of numerous jobs. In addition, it is also likely that the supply of workers being trained may not be able to keep up with the rising demand of a large occupation. This potential shortage situation creates more favorable conditions for job seekers. This type of information is also used by training program planners.

Example 3:

Southwest Minnesota Occupational Employment Projections, 1986-1993 Listing of Occupations With At Least 8 Percent Growth, Ranked By Most Growth					
RANKING	OCCUPATIONAL TITLE	1986 ESTIMATED EMPLOYMENT	1993 PROJECTED EMPLOYMENT	NUMERIC CHANGE	PERCENT CHANGE
1	Registered Nurses	2,350	2,610	260	11%
2	Bus Drivers, School	1,060	1,260	200	19
3	Hairdressers and Cosmetologists	990	1,120	130	13
4	Electrical & Electronic Engineer	300	420	120	39
5	Computer Programmers & Aides	470	570	100	22
6	Licensed Practical Nurses	1,120	1,220	100	9
7	Electromech. Eq. Assembler -Prec.	300	400	100	33
8	Accountants and Auditors	1,240	1,340	100	8
9	Receptionists, Information Clerks	790	890	100	12
10	Teacher Aides & Educ. Assistants	1,120	1,210	90	8
10	Electric., Electronic Assembler-Prec	420	500	90	21
12	Inspectors & Related Occupations	690	770	90	12
13	Electrical & Electronic Techns.	290	370	80	29
14	Lawyers	830	910	80	9
15	Computer Systems Analysts, EDP	300	370	70	23

This is another combination of numeric change and percent change. Here, numeric change determined the ranking, and only occupations that were projected to grow by at least a given percentage, in this case, eight percent, were included. The fifteen occupations with the largest growth are listed.

Example 4:

Occupational Projections by GED Code Composite - Minnesota Statewide
(total for each level with the three occupations in each level adding the most jobs)

OCCUPATIONAL TITLE	1986 ESTIMATED EMPLOYMENT	1993 PROJECTED EMPLOYMENT	PERCENT CHANGE	NUMERIC CHANGE	TOTAL OPENINGS 1986-1993
TOTAL ALL GED LEVELS	2,127,080	2,369,180	11%	242,100	724,850
TOTAL GED 1	137,860	153,580	11	15,720	50,340
Janitors, Cleaners, Maids	51,920	59,170	14	7,240	18,810
Hand Packers and Packagers	13,920	15,890	14	1,980	5,870
Dining Room & Bartender Helpers	8,610	10,160	18	1,550	2,490
TOTAL GED 2	513,750	562,660	10	48,920	164,220
Waiters and Waitresses	41,600	48,910	18	7,310	12,600
Cashiers	42,780	48,870	14	6,090	13,590
Truck Drivers	43,870	48,520	11	4,650	14,270
TOTAL GED 3	648,330	719,830	11	71,500	225,040
Salespersons, Retail	69,970	83,570	19	13,600	37,250
General Office Clerks	42,020	46,830	11	4,820	16,390
Nursing Aides and Orderlies	29,800	33,410	12	3,600	10,550
TOTAL GED 4	587,420	651,150	11	63,740	189,450
Secretaries	57,590	62,530	9	4,950	17,450
Teachers, Preschool, Kinder, Elem.	25,300	28,640	13	3,350	8,960
Teachers, Secondary School	21,390	23,640	11	2,250	5,460
TOTAL GED 5	223,040	262,520	18	39,480	88,400
General Managers and Top Exec.	43,730	49,860	14	6,140	17,340
Registered Nurses	30,890	36,010	17	5,120	10,130
Computer Programmers & Aides	12,680	16,810	33	4,130	7,200
TOTAL GED 6	16,690	19,430	16	2,740	7,410
Physicians and Surgeons	8,430	9,960	18	1,520	4,840
Psychologists	1,600	1,920	20	320	570
Architects, Exc. Land. & Marine	1,790	2,040	14	250	540

The General Educational Development (GED) scale (which ranges from 1-6) is composed of three divisions: Reasoning development, mathematical development, and language development. Ordinarily, such education is obtained in elementary school, high school, or college. However, it derives also from experience and self-study. Each division should be considered independently of the others when evaluating the level required for the job. The GED composite score given here is an average of the three, weighting each equally. Because of this, the specific occupations listed here may have some higher and lower scores in the individual scales which were averaged out when deriving the composite score.

This is an example of combining employment projections with another type of data. A GED composite code was assigned to all occupations, then the occupations were grouped by the GED composite code. Employment for 1986 and 1993, numeric change, and total openings were summed for each of the six levels, and the projected percent change for each level was computed. The three occupations with largest growth are also listed for each level.

Alphabetical Index of Occupations

Occupation	Page Numbers				
	Northeast	Northwest	Central	Southwest	Southeast
Accountants and Auditors	19	35	51	67	83
Adjustment Clerks	21	37	53	69	85
Agricultural and Food Scientists	19	35	51	67	83
AGRICULTURE, FORESTRY, FISHING	23	39	55	71	87
Aircraft Mechanics	23	--	--	--	--
Amusement & Recreation Attendant	23	39	55	71	87
Animal Caretakers, Except Farm	--	39	55	71	87
Architects	19	35	51	67	83
Architects, Exc. Land. & Marine	19	35	51	67	83
Artists and Related Workers	21	37	53	68	84
Automotive Body,Related Repairer	23	39	55	71	87
Automotive Mechanics	23	39	55	71	87
Bakers, Bread and Pastry	22	38	54	70	86
Bakers, Manufacturing	24	40	56	72	88
Banking, Security, Finance, Credit	21	37	53	69	85
Barbers	23	39	55	71	87
Bartenders	22	38	54	70	86
Bill and Account Collectors	21	37	53	69	85
Billing, Cost and Rate Clerks	21	37	53	69	85
Bill., Post, Calculating Mach.Op	22	38	54	69	86
Bindery Mach. Operators/Set/Tend	24	40	57	72	89
Biological Scientists	19	35	51	67	83
BLUE COLLAR WORKER SUPERVISORS	23	39	55	71	87
Bookkeeping & Accounting Clerks	21	37	53	69	85
Bricklayers and Stone Masons	24	40	56	71	88
Broadcast Technicians	21	36	--	68	--
Brokers, Real Estate	--	37	53	69	85
Bus, Truck, Diesel Eng. Mechanic	23	39	55	71	87
Bus Drivers	25	41	57	73	89
Bus Drivers, School	25	41	57	73	89
Butchers and Meatcutters	24	40	56	72	88
Camera Operators, TV & Movies	21	36	52	68	84
Cannery Workers	--	41	57	73	89
Carpenters	24	40	56	71	88
Carpet Installers	24	40	56	72	88
Cashiers	21	37	53	69	85
Cementing & Gluing Machine Oper.	--	--	--	--	89
Central Office Operators	22	38	54	70	86
Central Office & PBX Instal/Rpr.	23	39	55	71	87
Chemists, Except Biochemists	19	35	51	67	83
Child Care Wkrs., Pvt. Household	22	38	54	70	86
Child Care Workers	23	39	55	71	87
Civil Engineers, Incl. Traffic	19	35	51	67	83
Cleaners & Servants, Pvt. House.	22	38	54	70	86
CLEANING & BUILDING SERVICE OCC.	23	39	55	70	87
Clergy	20	36	52	68	84
CLERICAL & ADMIN. SUPPORT OCC.	21	37	53	69	85
Coil Winders, Tapers, Finishers	--	--	--	73	89
Coin & Vending Machine Servicers	--	--	56	--	--
College and University Faculty	20	36	52	68	84
Combin. Mach.Tool Set/Oper. M/P	--	40	56	72	88
Communications Equip. Mechanics	23	39	55	71	87
COMMUNICATIONS EQUIP. OPERATORS	22	38	54	70	86
Compliance & Enforce. Inspectors	19	35	51	67	83
COMPUTER AND MATHEMATICAL OCC.	19	35	51	67	83
Computer and Related Occupations	19	35	51	67	83
Computer Operators, Exc. Periph.	22	38	54	69	86
Computer Programmers & Aides	19	35	51	67	83
Computer Systems Analysts, EDP	19	35	51	67	83
Concrete and Terrazzo Finishers	24	40	56	71	88
Construction, Building Inspector	19	35	51	67	83
CONSTRUCTION TRADES, EXTRACTIVE	23	39	56	71	88
Construction Trades Helpers	25	41	57	73	90
Construction Workers	24	40	56	71	88
Cooking Machine Oper., Food/Tob.	--	41	57	73	89
Cooks, Fast Food and Short Order	22	38	54	70	86
Cooks, Institution or Cafeteria	22	38	54	70	86
Cooks, Restaurant	22	38	54	70	86
Correction Officers and Jailers	22	38	54	70	86
Cost Estimators	19	35	51	67	83
Counter and Rental Clerks	21	37	53	69	85
Court Clerks	21	37	53	69	85
Crane and Tower Operators	25	--	57	73	--

Alphabetical Index of Occupations

Occupation	Page Numbers				
	----- Northeast	Northwest	Central	Southwest	Southeast
Crushing & Mixing Machine Oper.	25	41	57	73	89
Custom Tailors and Sewers	24	40	56	72	88
Customer Service Reps, Utilities	21	37	53	--	85
Cutters and Trimmers, Hand	--	--	57	--	89
Cutting & Slicing Mach. Set/Ops	24	41	57	73	89
Dairy Processing Equip. Operator	--	41	57	73	89
Data Entry Keyers, Ex. Composing	22	38	54	69	86
DATA PROCESSING, OFFICE MACHINES	21	37	53	69	86
Dental Assistants	22	38	54	70	86
Dental Hygienists	20	36	52	68	84
Dental Laboratory Technicians	--	40	56	72	88
Dentists	20	36	52	68	84
Designers	21	36	52	68	84
Dietitians and Nutritionists	20	36	52	68	84
Dining Room & Bartender Helpers	22	38	54	70	86
Directors, Religious Activ./Educ.	20	36	52	68	84
Dispatchers: Exc. Pol., Fire, Amb.	22	38	54	70	86
Dispatcher: Police, Fire, Ambulance	22	38	54	70	86
Drafters	19	35	51	67	83
Drilling, Boring Mach. Set/Op., M/P	--	--	56	72	88
Driver/Sales Workers	25	41	57	73	89
Drywall Installers & Finishers	24	40	56	71	88
Dupl., Mail, & Other Office Equ.	22	38	54	69	86
Education Administrators	19	35	51	67	83
Electrical, Electronic Assembler	25	41	57	73	89
Electrical Powerline Instal/Rpr.	23	39	55	71	87
Electrical & Electronic Engineer	19	35	51	67	83
Electrical & Electronic Eq. Mech.	23	39	55	71	87
Electrical & Electronic Techns.	19	35	51	67	83
Electricians	24	40	56	71	88
Electric., Electronic Assembler-Prec	--	--	57	73	89
Electrolytic Plating Mach. Oper.	--	40	57	72	88
Electromech. Eq. Assembler -Prec.	25	--	57	73	89
Electronics Repairers, Comm.&Ind.	23	--	--	--	--
Emergency Medical Technicians	20	36	52	68	84
Employment Interviewers	19	35	--	--	--
Engineering Technicians	19	35	51	67	83
Engineers	19	35	51	67	83
ENGINEERS, ARCHITECTS, SURVEYORS	19	35	51	67	83
Excavation Loading Machine Oper.	25	41	57	73	89
Extractive and Blasting Workers	24	40	56	72	88
Extruding & Forming Mach. Set/Ops	25	41	57	73	89
Fallers and Buckers	--	39	55	71	87
Farm Equipment Mechanics	23	39	55	71	87
Farm Managers	23	39	55	71	87
FARM OPERATORS AND MANAGERS	23	39	55	71	87
FARM WORKERS	23	39	55	71	87
Farm & Home Management Advisors	--	36	--	--	--
Farmers	23	39	55	71	87
File Clerks	21	37	53	69	85
Financial Managers	19	35	51	67	83
Financial Specialists	19	35	51	67	83
Fire Fighters	22	38	54	70	86
FIRST LINE SUPERVISORS, CLERICAL	21	37	53	69	85
FIRST LINE SUPERVISORS, SERVICE	22	38	54	70	86
FOOD AND BEVERAGE OCCUPATIONS	22	38	54	70	86
Food Counter, Fountain & Related	22	38	54	70	86
Food Preparation Workers	22	38	54	70	86
Food Service & Lodging Managers	19	35	51	67	83
Forest and Conservation Workers	23	39	55	71	--
Forester, Conservation Scientist	19	35	51	67	83
FORESTRY AND LOGGING OCCUPATIONS	23	39	55	71	87
Freight & Material Movers, Hand	25	41	58	73	90
Furnace, Kiln, Oven, Kettle Oper.	24	41	57	73	89
Gardeners and Groundskeepers	23	39	55	71	87
General Managers and Top Exec.	19	35	51	67	83
General Office Clerks	21	37	53	69	85
GENERAL OFFICE OCCUPATIONS	21	37	53	69	85
Geologist, Geophysicist, Oceanog	19	--	--	--	--
Glaziers	--	--	56	--	--
Grader, Dozer, Scraper Operators	25	41	57	73	89
Grinding and Polishing, Hand	--	41	57	73	89
Grinding, Buffing Mach. Set/Op. M/P	24	40	56	72	88

Alphabetical Index of Occupations

Occupation	Page Numbers				
	Northeast	Northwest	Central	Southwest	Southeast
Guards and Watch Guards	22	38	54	70	86
Hairdressers and Cosmetologists	23	39	55	71	87
Hand Freight, Stock, Mat. Movers	25	41	58	73	90
Hand Packers and Packagers	25	41	58	73	90
HAND WORKING OCC., INC. ASSEMBLER	25	41	57	73	89
Head Sawyers & Saw Mach.Opr/Tend	24	40	57	72	89
Health Care Maintenance, Treating	20	36	52	68	84
HEALTH PRACTITIONERS, TECHNICIANS	20	36	52	68	84
HEALTH SERVICE OCCUPATIONS	22	38	54	70	86
Health Treating Practitioners	20	36	52	68	84
Heating, A/C, Refrig. Mechanics	23	39	55	71	87
HELPER, LABORER, MAT.MOVER, HAND	25	41	57	73	90
Highway Maintenance Workers	24	40	56	72	88
Home Appli.& Power Tool Repairer	23	39	55	71	87
Home Entertainment Eq. Repairers	23	39	55	71	87
Home Health Aides	22	38	54	70	87
Hosts & Hostesses: Rest., Lounge	22	38	54	70	86
Hotel Desk Clerks	21	37	53	69	85
Housekeepers, Institutional	22	38	54	70	86
Housekeepers and Butlers	22	38	54	70	86
Industrial Engineers, Exc. Safety	19	35	51	67	83
Industrial Machinery Mechanics	23	39	55	71	87
Industrial Truck & Tractor Oper.	25	41	57	73	89
INDUSTRY SPECIFIC SUPPORT OCC.	21	37	53	69	85
INSPECTORS & RELATED OCCUPATIONS	24	40	56	72	88
Instructors, Nonvocational Educ.	20	36	52	68	84
Insulation Workers	--	--	56	--	88
Insurance Adjusters, Investigator	--	37	--	69	85
Insurance Claims Clerks	--	--	--	69	85
Insurance Policy Process. Clerks	21	37	53	69	85
Insurance Sales Workers	21	37	53	69	85
Interviewing Clerks, Ex.Personnel	21	37	53	69	85
Janitors, Cleaners, Maids	23	39	55	70	87
Jewelers and Silversmiths	--	--	--	--	88
Job Printers	--	--	56	72	88
Judges, Magistrates, Adjudicator	--	36	--	--	--
Lathe, Turning Mach.Setter/Op,M/P	--	40	56	72	88
Laundry, Drycleaning Mach. Oper.	24	40	57	72	89
LAW AND RELATED OCCUPATIONS	20	36	52	68	84
Lawyers	20	36	52	68	84
Lawyers and Judges	20	36	52	68	84
Legal Assistants and Technicians	20	36	52	68	84
Letterpress Setter/Operator	--	--	57	72	89
Librarians, Archivists, Curators	20	36	52	68	84
Librarians, Professional	20	36	52	68	84
Library Assistants & Bookmobile	21	37	53	69	85
Licensed Practical Nurses	20	36	52	68	84
Life Scientists	19	35	51	67	83
Loan and Credit Clerks	21	37	53	69	85
Loan Officers and Counselors	19	35	51	67	83
Log Handling Equipment Operators	23	39	55	71	87
Logging Tractor Operators	23	39	--	--	--
Low Pressure Boiler Operator	--	41	57	73	89
Machine Assemblers	--	--	--	73	89
Machine Builders - Precision	--	--	--	73	89
Machine Feeders and Offbearers	25	41	58	73	90
Machine Forming Operators, M/P	24	40	56	72	88
Machine Tool Cutting Oper., M/P	24	40	56	72	88
Machinists	24	40	56	72	88
MACH.SET.,SET-UP OP.,OPER.& TEND	24	40	56	72	88
Mail Clerks, Exc. Mail Machine	22	38	54	70	86
MAIL & MESSAGE DISTRIB. WORKER	22	38	54	70	86
Maintenance Repairers, Gen.Util.	23	39	55	71	87
Management Analysts	19	35	51	67	83
MANAGEMENT SUPPORT OCCUPATIONS	19	35	51	67	83
MANAGERIAL AND ADMINISTRATIVE OCC.	19	35	51	67	83
Marketing, Adv., Public Rel.Mgrs	19	35	51	67	83
Material Moving Equipment Oper.	25	41	57	73	89
MATERIAL RECORD., SCHED., DISTRIB	22	38	54	70	86
Mates and Able Seamen	25	--	--	--	--
Mathematical and Related Occup.	--	--	--	--	83
Meat, Poultry, Fish Cutters	--	41	57	73	89
Mechanical Engineers	19	35	51	67	83

Alphabetical Index of Occupations

Occupation	Page Numbers				
	Northeast	Northwest	Central	Southwest	Southeast
MECHANICS, INSTALLERS, REPAIRERS	23	39	55	71	87
Medical Assistants	22	38	54	70	86
Medical Records Techn.& Technol.	20	36	52	68	84
Med. Technicians & Technologists	20	36	52	68	84
Med. & Clinic Lab Tech. & Techno	20	36	52	68	84
Messengers	--	38	54	70	86
Metal Molding Mach.Ops/Tend/Set	--	--	--	72	88
Metal & Plas. Mach. Set/Ops/Tend	24	40	56	72	88
Metallurgists and Rel. Engineers	19	--	--	--	--
Meter Readers, Utilities	22	38	54	70	86
Millwrights	23	39	55	71	87
Mining Quarrying & Tunneling Occ	24	--	--	--	--
Mobile Heavy Equipment Mechanics	23	39	55	71	87
Motor Vehicle Operators	25	41	57	73	89
Municipal Clerks	21	37	53	69	85
Musicians	21	37	53	68	85
NATURAL SCIENTISTS	19	35	51	67	83
New Accounts Clerks	21	37	53	69	85
Numerical Control Mach.Tool, M/P	--	40	56	72	88
Nursery Workers	--	39	55	71	87
Nursing Aides and Orderlies	22	38	54	70	86
Occupational Therapists	20	36	52	68	84
Occupational Therapy Assistants	--	38	55	70	87
Office Machine, Register Servicer	23	39	55	71	87
Offset Lithographic Press Setter	24	--	57	72	89
Operating Engineers	25	41	57	73	89
OPERATOR, FABRICATOR, AND LABORER	24	40	56	72	88
Optical Goods Workers	--	--	56	--	--
Opticians, Dispensing & Measur.	20	36	52	68	84
Optometrists	20	36	52	68	84
Order Clerks: Materials, Service	21	37	53	69	85
Order Fillers, Sales	22	38	54	70	86
OTHER AGRIC.,FOREST,FISH.	23	39	55	71	87
OTHER CLERICAL & ADM.SUPPORT	22	38	54	70	86
Other Hand Workers & Assemblers	25	41	57	73	89
Other Health Prof.,Para, Tech	20	36	52	68	84
Other Helper, Laborer, Mover	25	41	58	73	90
Other Mach. Set,Operators,Tender	24	40	57	72	89
Other Management Support Occ.	19	35	51	67	83
Other Mechanics, Installers, Rep	23	39	55	71	87
Other Precision Workers	24	40	56	72	88
OTHER PROF.,PARAPROF.,TECHN.	21	37	53	68	85
OTHER SALES & RELATED OCC.	21	37	53	69	85
OTHER SERVICE WORKERS	23	39	55	71	87
Other Transp., Mat.Moving Opr	25	41	57	73	89
Packaging & Filling Machine Oper.	25	41	57	73	89
Painters, Transportation Equip.	--	41	--	73	--
Painters and Paperhangers	24	40	56	71	88
Painting and Coating, Hand	--	--	57	--	89
Painting Machine Operators	25	41	57	73	89
Paralegal Personnel	20	36	--	68	84
Paving, Surfacing, Tamping	24	40	56	72	88
Payroll and Timekeeping Clerks	21	37	53	69	85
Peripheral EDP Equip. Operators	--	--	--	69	86
PERSONAL SERVICE OCCUPATIONS	23	39	55	71	87
Personnel, Training, Labor Rel.Mgr	19	35	51	67	83
Personnel, Train.,Labor Rel. Spec	19	35	51	67	83
Personnel Clerks, Except Payroll	21	37	53	69	85
Personnel Specialists & Related	19	35	51	67	83
Pharmacists	20	36	52	68	84
Pharmacy Assistants	22	38	55	70	87
Photoeng.& Lithog. Mach.Ops/Tend	--	--	--	72	--
Photographers	20	36	52	68	84
Photographic Processing Mach.Op.	--	--	--	--	89
Physical, Correct.Therapy Assist	22	38	54	70	87
Physical Scientists	19	35	51	67	83
Physical Therapists	20	36	52	68	84
Physical & Life Sci. Technicians	19	35	51	67	83
Physician Assistants	20	36	52	68	84
Physicians and Surgeons	20	36	52	68	84
Pipelayers & Pipelaying Fitters	24	40	56	72	88
PLANT & SYSTEM OCCUPATIONS	24	40	56	72	88
Plastic Molding, Casting Oper.	--	40	57	72	88

Alphabetical Index of Occupations

Occupation	Page Numbers				
	Northeast	Northwest	Central	Southwest	Southeast
Plumber, Pipefitter, Steamfitter	24	40	56	72	88
Police and Detective Supervisors	22	38	54	70	86
Police Detectives & Investigator	22	38	--	70	86
Police Patrol Officers	22	38	54	70	86
Postal Mail Carriers	22	38	54	70	86
Postal Service Clerks	22	--	--	70	86
Postmasters, Mail Superintendent	19	35	51	67	83
Power Distributors & Dispatchers	24	40	--	--	--
Power & Reactor Plant Operators	24	40	56	72	88
Precision Assemblers	25	41	57	73	89
Precision Compositor, Typesetter	--	--	--	72	--
Precision Food Workers	24	40	56	72	88
Precision Instrument Repairers	23	39	55	--	87
Precision Lithographers & Photo.	24	--	56	72	88
Precision Metal Workers	24	40	56	72	88
Precision Printing Workers	24	40	56	72	88
PRECISION PRODUCTION AND REPAIR	23	39	55	71	87
PRECISION PRODUCTION OCCUPATIONS	24	40	56	72	88
Precision Textile, Apparel, Furn	24	40	56	72	88
Precision Woodworkers	24	40	56	72	88
Pressing Mach.Operator, Textiles	--	40	57	--	89
Printing, Binding, & Related Occ	24	40	57	72	89
Printing Press Mach.Ops/Set/Tend	24	40	57	72	89
PRIVATE HOUSEHOLD OCCUPATIONS	22	38	54	70	86
Procurement Clerks	--	--	--	--	85
Production, Expediting Clerks	22	38	54	70	86
Prod., Direct., Actors,Entertainer	--	37	--	--	--
PROFESSIONAL, PARAPROFESS.,TECH.	19	35	51	67	83
Property, Real Estate Management	19	35	51	67	83
PROTECTIVE SERVICE OCCUPATIONS	22	38	54	70	86
Psychiatric Aides	22	38	54	70	87
Psychologists	20	36	52	67	84
Public Admin., Leg., Gen. Admin.	19	35	51	67	83
Public Relations Specialists	20	36	52	68	84
Punching Mach. Setter/Oper., M/P	--	--	56	72	88
Purchasing Agent Ex.Who/Ret/Farm	19	35	51	67	83
Purchasing Agents and Buyers	19	35	51	67	83
Purchasing Managers	19	35	51	67	83
Radio & TV Accouncer & Newscast.	20	36	52	68	84
Radiologic Technol. & Technician	20	36	52	68	84
Rail Car Repairers	23	39	--	--	--
Rail Transportation Workers	25	41	57	73	89
Railroad Brake, Signal, Switch	25	41	57	--	--
Railroad Conductors, Yardmasters	25	41	57	--	--
Receptionists, Information Clerks	21	37	53	69	85
Records Processing Occ.Exc Finan	21	37	53	69	85
Recreation Therapists	20	36	52	68	84
Recreation Workers	20	36	52	68	84
Refuse Collectors	25	41	58	73	90
Registered Nurses	20	36	52	68	84
Reporters and Correspondents	20	36	52	68	84
Respiratory Therapists	20	36	52	68	84
Res. & Ticket Agt., Travel Cons.	--	37	--	--	--
Roofers	24	40	56	72	88
Sales Agents, Real Estate	21	37	53	69	85
SALES AND RELATED OCCUPATIONS	21	37	53	69	85
SALES OCCUPATIONS, SERVICES	21	37	53	69	85
SALES OCC., RETAIL AND RELATED	21	37	53	69	85
Salespersons, Retail	21	37	53	69	85
Screen Printing Mach. Setter/Op.	--	--	57	72	89
SECRETARIES	21	37	53	69	85
Securities, Financial Serv.Sales	21	37	53	69	85
Separating, Filtering Mach. Op.	25	41	--	--	--
SERVICE OCCUPATIONS	22	38	54	70	86
Service Station Attendants	25	41	57	73	89
Sewers, Hand	--	--	--	--	89
Sewing Mach. Operator, Garment	24	40	57	72	89
Sewing Mach. Oper., Non-Garment	--	40	57	72	89
Sheet Metal Workers	24	40	56	72	88
Shoe Sewing Machine Operator	--	--	--	--	89
Small Engine Specialists	--	39	55	--	--
Social, Recreation, Religion Occ	20	36	52	68	84
Social Scientists	20	35	52	67	84

Alphabetical Index of Occupations

Occupation	Page Numbers				
	Northeast	Northwest	Central	Southwest	Southeast
SOCIAL SCIENTISTS, RECR., RELIGION	20	35	51	67	83
Social Service Technicians	20	36	52	68	84
Social Welfare Service Aides	23	39	55	71	87
Social Workers	20	36	52	68	84
Solderers and Brazers	--	--	--	--	89
Speech Pathologists, Audiologists	20	36	52	68	84
Statement Clerks	--	37	53	69	85
Stationary Engineers	24	40	56	72	88
Statistical Clerks	21	37	53	69	85
Stenographers	21	37	53	69	85
Stock Clerks, Sales Floor	21	37	53	69	85
Stock Clerks: Stockroom Or Wareh.	22	38	54	70	86
Structural Metal Fabricators	--	--	56	--	--
Struct. & Reinforce. Metal Worker	24	40	56	71	88
SUPERVISORS, FARM, FOREST, AG. REL	23	39	55	71	87
Surgical Technicians	20	36	52	68	84
Surveying and Mapping Scientists	19	35	51	67	83
Switchboard Operators	22	38	54	70	86
Tax Examiner, Collector, Rev. Agent	19	35	51	--	--
Taxi Drivers and Chauffeurs	25	41	57	73	89
Teacher Aides & Educ. Assistants	21	37	53	69	85
TEACHERS, LIBRARIANS, COUNSELORS	20	36	52	68	84
Teachers, Preschool, Kinder, Elem.	20	36	52	68	84
Teachers, Secondary School	20	36	52	68	84
Teachers, Vocational Education	20	36	52	68	84
Teachers and Instructors	20	36	52	68	84
Technical Assistants, Library	20	36	52	68	84
Telephone & Cable TV Instal/Rpr.	23	39	55	71	87
Tellers	21	37	53	69	85
Textile Mach. Operators & Related	24	40	57	72	89
Text. Drawout & Wind. Mach. Ops/Set	--	--	57	--	89
Therapists	20	36	52	68	84
Tire Repairers and Changers	23	39	56	71	88
Title Examiners and Clerks	--	36	52	--	--
Tool and Die Makers	24	40	56	72	88
TOTAL, ALL OCCUPATIONS	19	35	51	67	83
Traffic, Shipping, & Rec. Clerks	22	38	54	70	86
TRANSP. & MAT. MOVING MACH. OPER.	25	41	57	73	89
Travel Agents	21	37	53	69	85
Truck Drivers	25	41	57	73	89
Typesetting Mach. Operator/Tend.	24	--	57	72	89
Typists and Word Processors	21	37	53	69	85
Underwriters	--	--	--	67	83
Upholsterers	24	40	56	72	88
Urban and Regional Planners	20	35	--	67	--
Ushers, Lobby Att., Ticket Taker	--	39	--	--	--
Vehicle, Equipment Cleaners	25	41	58	73	90
Vehicle & Mobile Equip. Mechanic	23	39	55	71	87
Veterinarians, Vet. Inspectors	20	36	52	68	84
Vocational & Educ. Counselors	20	36	52	68	84
Waiters and Waitresses	22	38	54	70	86
Water and Air Transp. Workers	25	--	--	--	89
Water & Waste Treat. Plant Oper.	24	40	56	72	88
Weighers, Measurers, Checkers	--	--	54	70	86
Welders and Cutters	25	41	57	73	89
Welding Machine Set/Ops/Tenders	24	40	56	72	88
Welfare Eligibility Workers	21	37	53	69	85
Wholesale, Retail Buyers, Ex. Farm	19	35	51	67	83
Woodworking Machine Operators	24	40	57	--	89
Woodworking Machine Setters, Op.	24	40	57	72	88
WRITER, ARTIST, ENTER., ATHLETE	20	36	52	68	84
Writers, Editors, Incl Technical	20	36	52	68	84

-- employment less than 50 (rounded) in that occupation in that region. Employment in a few occupational sub-categories was less than 50, for example water and air transportation workers. In these cases it was put into an "all other" category.

For More Information

Projections for Other Areas:

Two other projections publications are available from the Research and Statistics Office, one for Minnesota statewide and one covering the seven-county Twin Cities area. Call our receptionist at (612) 296-6545 to order these.

Diskette:

Employment projections information is also available on diskette. This information, presented in dBASE III, includes occupational data tables (similar to Figures 15-22), and an overall industry table (similar to Figure 2). A menu-driven ranking program for this will be available in the near future. Tables are also available in LOTUS or ASCII format. There is no charge for this at the present; we request only that the user send a formatted diskette. Call (612) 296-6545 to order.

Related Occupational Information:

The following publications with occupational information are also available:

1. Important Minnesota Occupations by Industry: A Summary Based upon the 1984, 1985, and 1986 OES Estimates.
2. 1989 Minnesota Salary Survey.
3. 1989 Minnesota Salary Survey of Hospitals and Nursing Homes.

4. Minnesota Careers - Quick guide to 200 Minnesota careers, for career planners. Graphically shows occupational size, salary, growth rate, yearly job openings and required training. To be available October 1989.

To request any of these, call our receptionist at (612) 296-6545.

Comparable National Information:

Sources for occupational information for the United States as a whole:

1. Occupational Outlook Handbook, 1988-89 Edition, U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2300, April 1988.
2. Monthly Labor Review, U.S. Department of Labor, Bureau of Labor Statistics, September 1987.
3. Projections 2000, U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2302, March 1988.

Additional Information and Analysis:

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