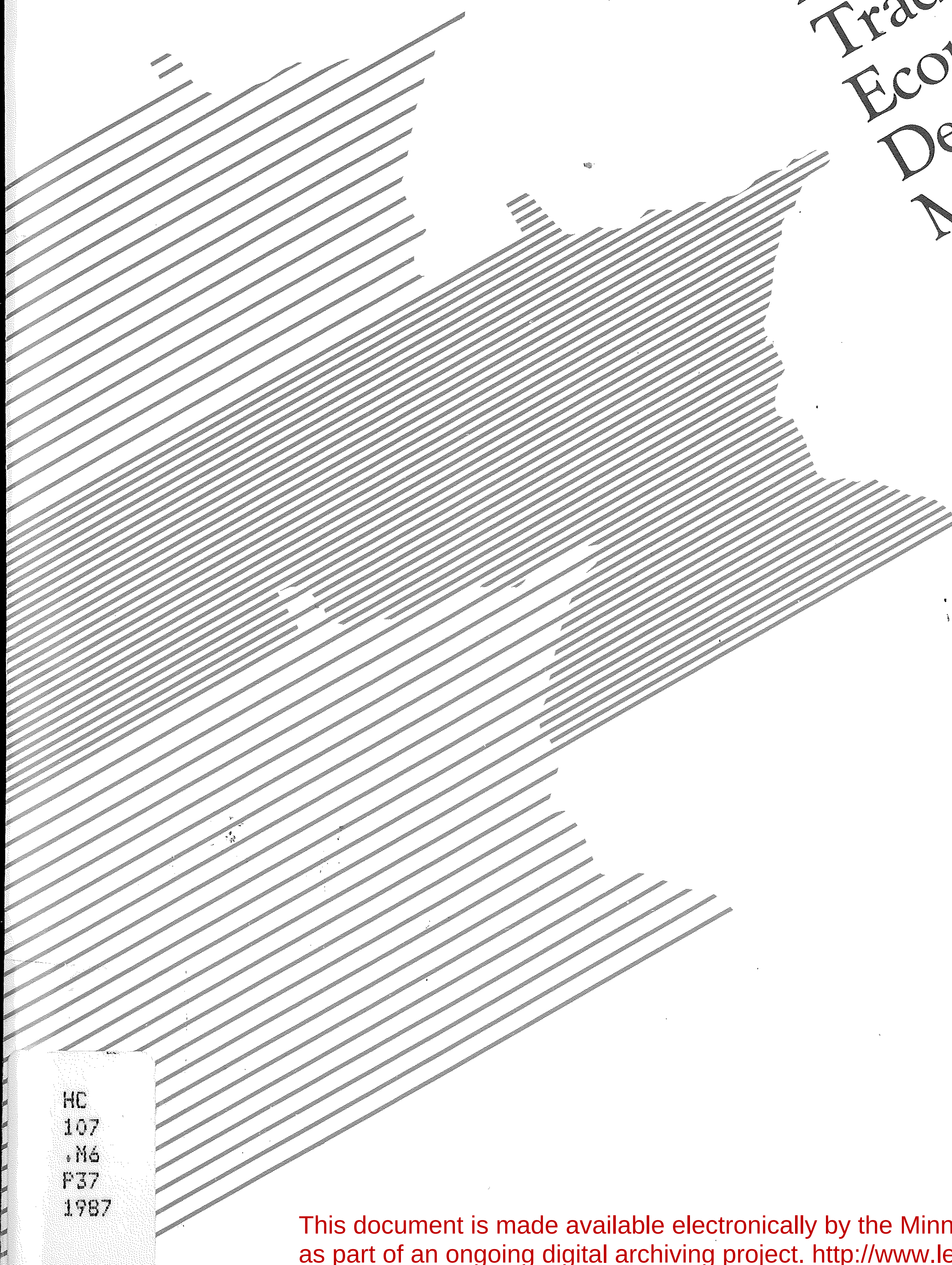
Partnerships: A Fresh Approach for Trade and Economic Development in Minnesota



PARTNERSHIPS - A FRESH APPROACH TO TRADE AND ECONOMIC DEVELOPMENT IN MINNESOTA

DEPARTMENT OF ENERGY AND ECONOMIC DEVELOPMENT
POLICY ANALYSIS DIVISION
900 AMERICAN CENTER BUILDING
150 EAST KELLOGG BOULEVARD
ST. PAUL, MINNESOTA 55101

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

I. Economic Problems in Greater Minnesota

A. Introduction

The 1980s have presented the American economy with new realities. The emergence of a multitude of nations from the devastation of World War II and from centuries of economic dormancy has sharpened global economic competition, reducing America's influence in the world economy. The entry of these competitors into a relatively open world trading system has tightened the cord of economic interdependence among all nations, making national economies sensitive to events taking place halfway around the world.

These forces have extended to thousands of local and regional economies. Minnesota is no exception. Parts of its economy have flourished in this novel environment: industrializing countries offer new markets for many of the goods and services produced by Minnesota companies. Other economic actors in the state have felt the negative side of intensified competition, as countries with a more modern capital stock, or lower labor costs, or more efficient organizational methods have increased their market share at Minnesota's expense.

In such times of transition, economies which are diversified are less likely to suffer dislocation than those which are more dependent on a single industry. Growing industries can balance those in decline, maintaining the level of an area's labor force, income and tax base.

For several reasons, diversified economies are more typical of larger urban centers, while rural areas are more often characterized by very narrow economic bases. This has historically been the case in Minnesota. Minneapolis-St. Paul and its surrounding area has always contained most of the manufacturing employment in the state, as well as the bulk of such business activities as finance, insurance and real estate and wholesaling. The economies of other areas of the state focused on developing Minnesota's rich endowment of natural resources, such as lumber, mining and agriculture.

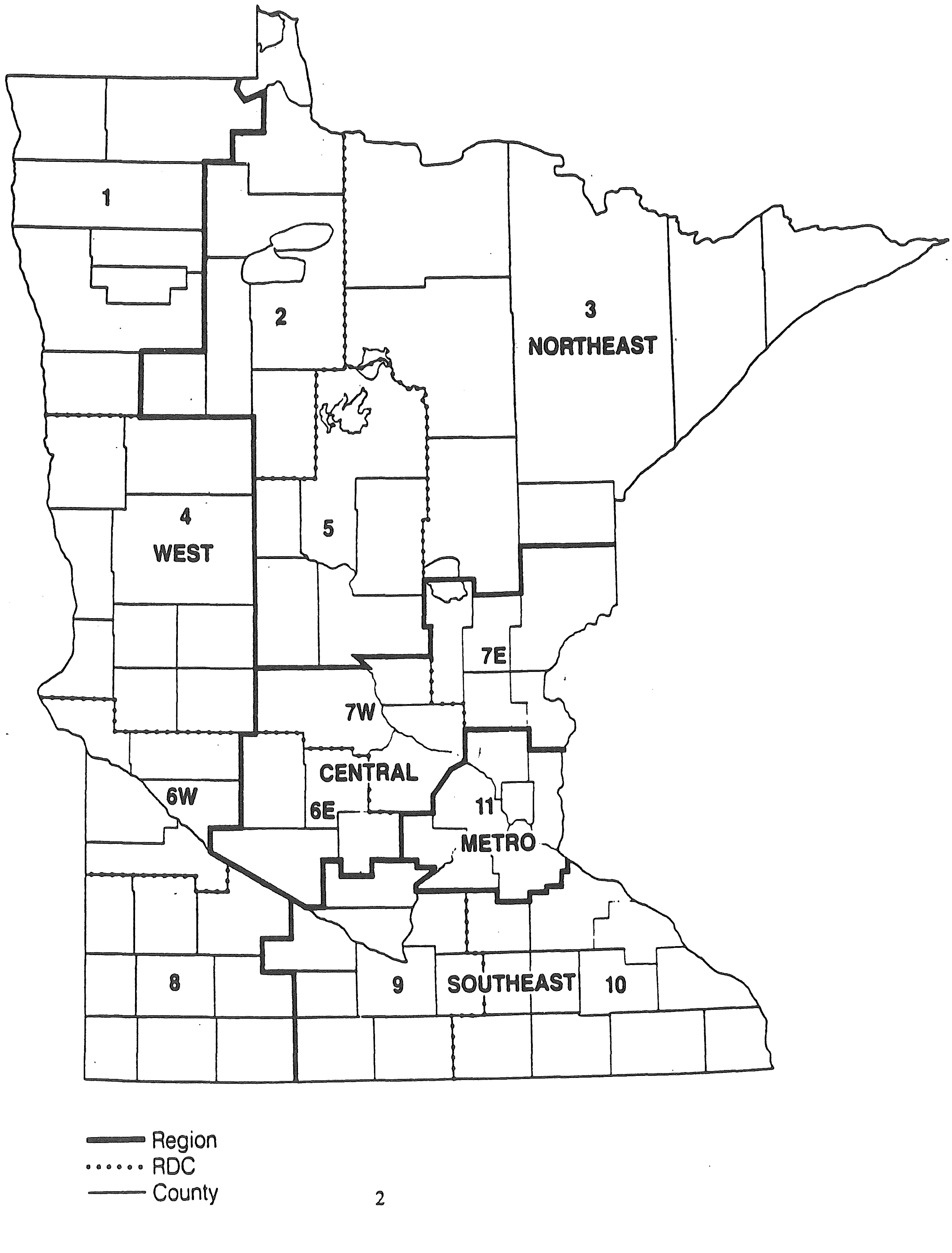
Even as late as 1950, this general pattern could be observed. Agriculture, forestry and fisheries accounted for over 49 percent of total employment in the West region, 46 percent in the Central region, and 36 percent in the Southeast (Regions are defined in Figure 1). In the Northeast, more than 21 percent of the jobs in 1950 were in agriculture, with an additional 8 percent in mining.

Over the next three decades, the regional economies of Greater Minnesota sought to diversify. The Central and Southeast regions were most successful. By 1984, the Southeast's proportion of its workforce in manufacturing was even greater than that of the Metro region, while the Central region fell just short of the statewide average of 21.4 percent.

Although the West region increased its manufacturing employment from 4 to 14 percent over this period, it still had the largest share of employees in agriculture, over 15 percent. The Northeast region, in contrast, showed a decline in the relative size of its manufacturing sector, from 14.9 percent in 1950 to 12.4 percent in 1984.

FIGURE 1

MINNESOTA'S ECONOMIC REGIONS



As a result, the Northeast and West regions were most susceptible to sudden declines in their principal export industries, mining and agriculture, respectively. The new international economy was a major factor causing both industries to suffer sharp reversals within the past five years. Predominantly agricultural counties in other regions of the state have also experienced serious economic problems.

B. The Reverses of the 1980's

1. Mining

The decline in Minnesota's taconite production occurred swiftly. In 1979, mining employment averaged 17,300 workers. Four years later, that figure was cut by more than half, to 8,400 employees. During the first nine months of 1986, employment averaged about 6,400.

The immediate cause of this collapse was the drop in demand for taconite on the part of the Iron Range's principal customer, the steel industry of the Great Lakes region. Once the backbone of America's industrial might, the plight of U.S. steel manufacturers stemmed from foreign competition in both a direct and indirect sense.

First, lower-cost steel was being produced by newcomers like Brazil and South Korea, stimulating U.S. imports of foreign steel. In turn, the largest customer of the U.S. steel plants, the domestic automobile industry, was experiencing decreased sales as a result of the popularity of competitively-priced high-quality cars made in Japan and West Germany. The downsizing of the U.S. auto fleet, which had begun in the wake of OPEC's oil price increases, also reduced the demand for steel. High oil prices also stimulated the substitution of lighter materials for heavy steel in motor vehicles and other products, further cutting demand.

This drastic cut in the Northeast region's major export industry was accompanied by a significant loss of jobs in its manufacturing sector. Between 1976 and 1984 manufacturing employment fell by over 2,500 jobs, a loss of 11.7 percent. Absolute employment declines were registered in nine of sixteen manufacturing sectors. Some of these losses were substantial. The region lost 76 percent of its textiles/apparel employment (1,318 jobs); 53 percent of its base in transportation equipment (627 jobs); 47 percent of its employment in food and kindred products (1,269 jobs); 24 percent of its jobs in the stone, clay and glass industry (346 jobs). In addition, the Northeast was the only region to lose employment in three other manufacturing sectors: furniture and fixtures, paper and allied products, and primary metals.

2. Agriculture

International factors also played a prominent role in bringing on the depressed state of American agriculture, which is painfully evident in Greater Minnesota. Farmers projected that high commodity prices and the 10 percent annual average growth rates of foreign markets for U.S. grain and soybeans characteristic of the 1970s would continue. As a result, farmers invested heavily in additional land and new equipment, aided by expectations of continued rising land prices and, despite high inflation, low real interest rates. This new investment expanded U.S. agricultural productive capacity by 20 percent.

Events in the 1980s turned these policies into disaster. First, worldwide recession and the soaring debt of less developed countries put a sharp brake on demand for U.S. farm goods. Foreigners also stepped up their own agricultural production, further reducing demand. In eighteen counties in Minnesota, more than half the agricultural sales in 1982 were of export oriented crops such as corn, wheat and soybeans. These counties, shown in Figure 2, are particularly hard hit by sagging exports.

Real interest rates that were low because of rampant inflation became high as the 1981-82 recession dampened inflationary pressures. Those rates attracted foreign capital to the U.S., keeping the value of the dollar high against foreign currencies, shutting off even more foreign markets for U.S. agricultural products. By 1985, grain exports through the Duluth-Superior port had fallen 70 percent from their 1980 level, dropping from 6.7 million to 2 million metric tons.

High output and low demand led to falling commodity prices and lower earnings for farmers. Likewise, farmers' equity and land values plummeted at the same time that high real interest rates saddled them with a soaring debt service load, seriously eroding the financial position of many farm operators.

Statistics dramatically tell the story. According to the U.S. Department of Agriculture, farm interest payments averaged 16 percent of farmers' net cash income in 1970. By 1983, interest payments appropriated 46 percent, almost half, of net cash income.

Between 1980 and 1984, equity in Minnesota farms fell by almost 38 percent, but total farm debt increased by over 23 percent. As a result, average debt/equity ratios doubled, from 22.1 to 43.7 percent.

Perhaps the best single measure of the degree of seriousness of farmers' financial problems is the debt to asset ratio. Under current conditions, farms carrying debt equal to 40 to 70 percent of total assets may be experiencing serious cash shortfalls. Higher ratios indicate an even more tenuous financial condition, while farmers with debt/asset ratios above 100 percent are said to be technically insolvent.

Table 1 and Figure 3 show the distribution of all Minnesota farms by debt/asset ratio in January 1984 and January 1985. In that one-year period the proportion of technically insolvent Minnesota farmers more than doubled, from 5.3 to 12.7 percent of all farm operators. The debt held by this group increased even faster, accounting for one-fourth of the total farm debt in Minnesota. The number of farmers with debt/asset ratios in the 70 to 100 percent range also rose, while those in the 40 to 70 percent category dropped slightly. In summary, these statistics show that over 52 percent of Minnesota farm operators were experiencing varying levels of financial stress in 1985.

That figure somewhat overstates the problem, however, because not all farms with high debt/asset ratios are in financial trouble. For example, very large farms with over $500,000 in annual sales can operate with high debt/asset ratios because much of their land is rented, thus lowering

FIGURE 2

MINNESOTA COUNTIES WITH MORE
THAN HALF OF AGRICULTURAL SALES
IN EXPORT ORIENTED CROPS, 1982

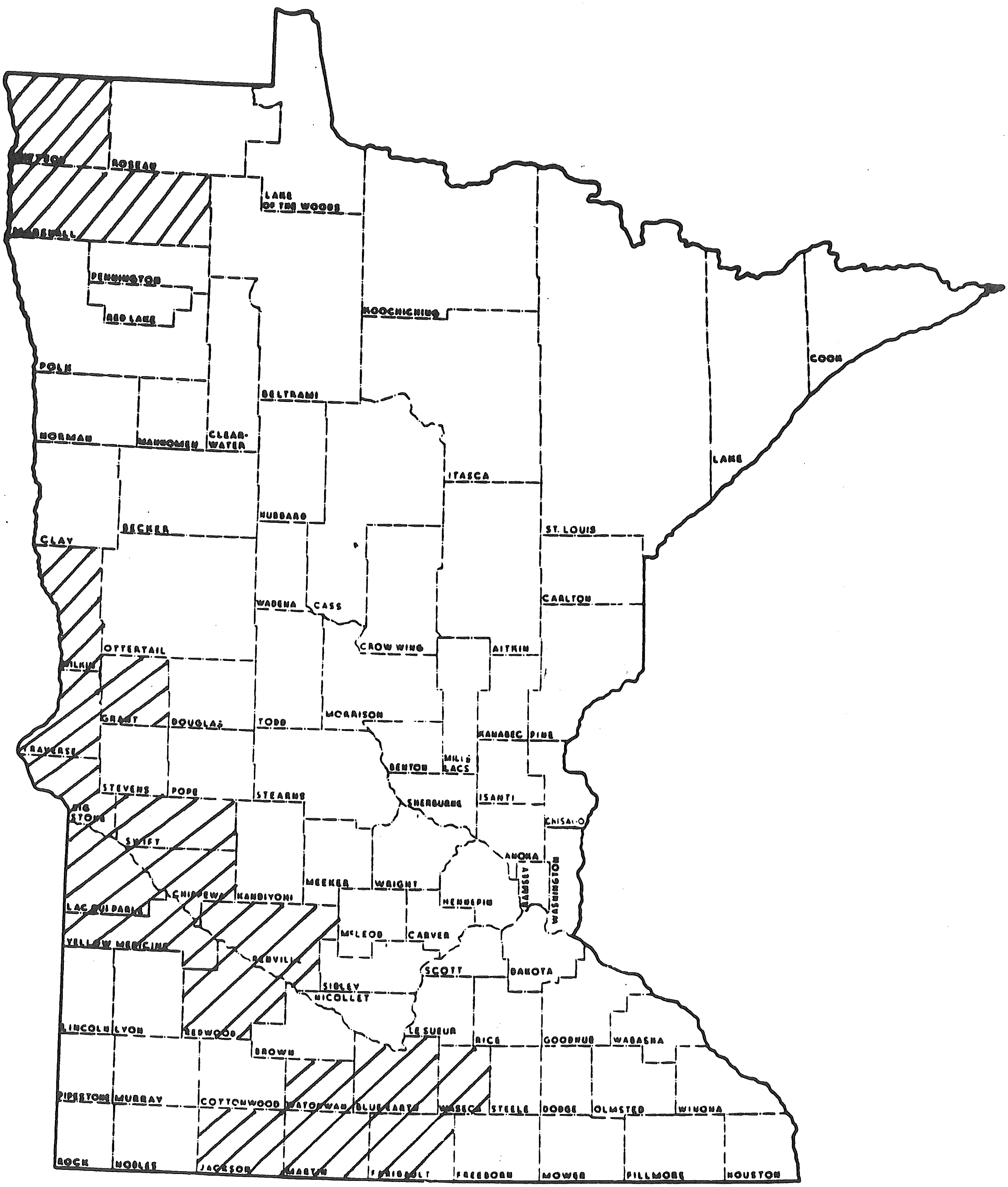
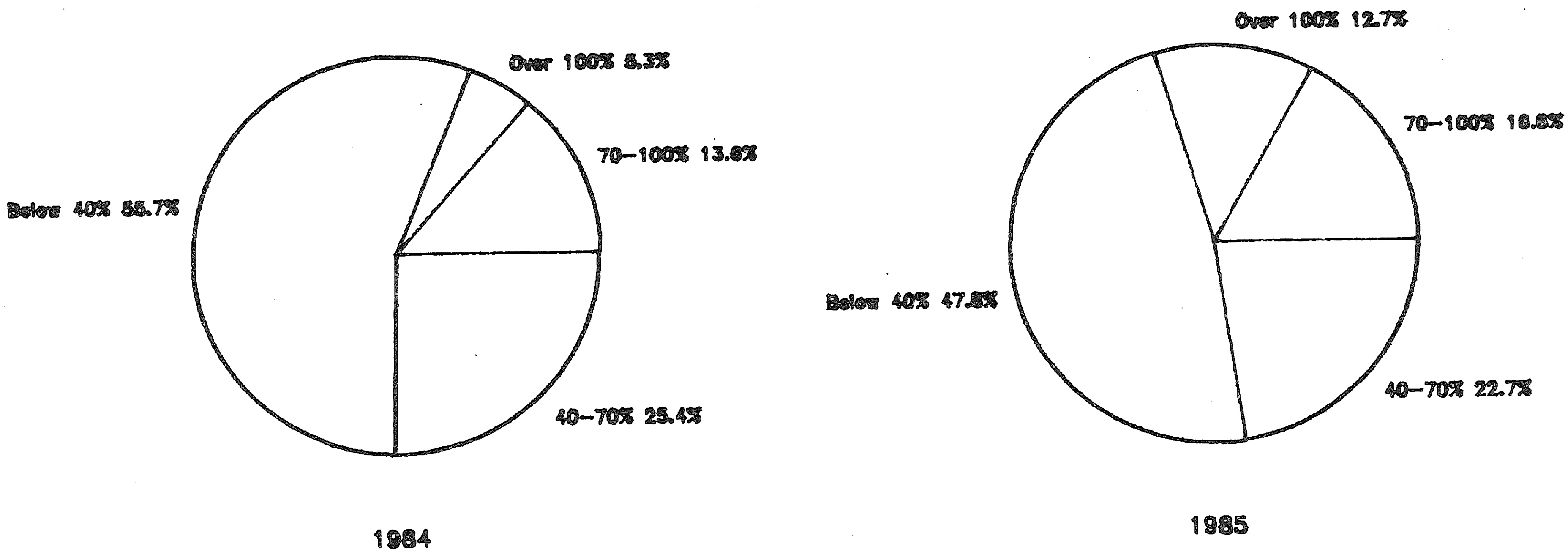


FIGURE 3

DISTRIBUTION OF MINNESOTA FARMS
BY DEBT-TO-ASSETS RATIOS



SOURCE: MN DEPT. OF AGRICULTURE, "MINNESOTA FARM FINANCIAL SURVEY", 1985

TABLE 1

DISTRIBUTION OF MINNESOTA FARMS BY DEBT-TO-ASSET RATIOS, 1984 and 1985

DEBT/ASSET RATIO	1984 PERCENT OF OPERATORS	1984 PERCENT OF ALL DEBT	1985 PERCENT OF OPERATORS	1985 PERCENT OF ALL DEBT	1984-1985 PERCENT CHANGE OPERATORS	1984-1985 PERCENT CHANGE IN DEBT
Over 100% (Technically Insolvent)	5.3	9.6	12.7	24.7	140	157
70-100% (Extreme financial problems	13.6	26.6	16.8	31.2	24	17
40-70% (Serious financial problems)	25.4	41.2	22.7	29.3	-11	-29
SUMMARY 40%+ (Experiencing Varying Degrees of Financial Stress)	44.3	77.4	52.2	85.2	18	10

SOURCE: Minnesota Department of Agriculture, <u>Minnesota Farm Financial Survey</u>, <u>1985</u>.

their total asset values. Similarly, small "hobby" farms generally rely on off-farm income sources to repay their loans. They do not experience the same level of financial stress felt by those relying solely on farm income.

Statistics compiled by the U.S. Census of Agriculture for Minnesota enable these two categories of farms to be subtracted from the totals. The result is that about 25,000 to 30,000 Minnesota farmers were operating under varying degrees of financial difficulty in early 1985.

These financial problems are not spread uniformly throughout the state. The nine counties in the southwestern corner of the state had the highest proportion of farmers with debt/asset ratios above 70 percent. Forty-three percent of the farmers in this area reported such ratios as of January 1, 1985, compared with 29.5 percent statewide. The southeastern and south central areas of the state also reported debt/asset ratios above the statewide average. In these same areas, more than 70 percent of the farmers reported negative cash incomes in 1984, compared with the statewide average of 17 percent.

C. The Effects of Economic Stress on Communities

When the major industries in a region begin to decline, that weakness spreads to other parts of the local economy. Businesses dependent on the income spent by employees of the major industries, as well as suppliers of goods to those industries or to other businesses connected with them, will also suffer losses. Economic interdependence assures that hard times as well as good times are shared by communities. In this way, problems of a single industry become community problems.

One simple measure of economic distress is the rate of unemployment. Figure 4 shows the counties in Minnesota that have had average unemployment rates over the 1980-86 period that were 20 percent or more above the statewide annual average of 6.5 percent.

Thirty-five of Minnesota's eighty-seven counties fall into this group. Nineteen counties have had unemployment rates above 10 percent throughout the 1980's; for 6 of these counties, the 7-year unemployment rate has averaged over 14 percent. These high chronic unemployment rates are concentrated in the northern part of the state. Only a handful of counties in the southern half of the state have suffered from extended unemployment in this decade, and at much lower levels than in the north.

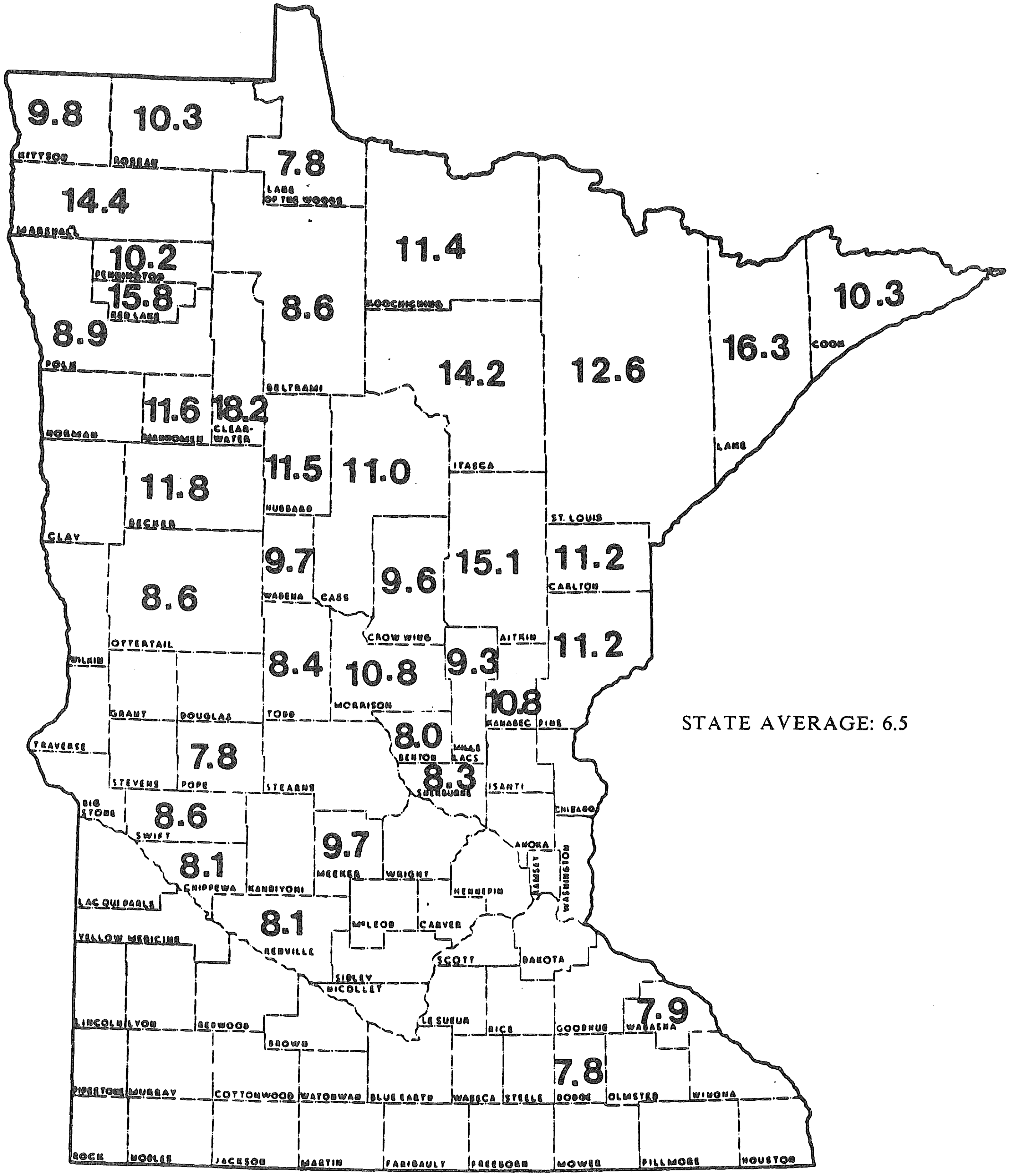
A second indicator of economic distress is the proportion of total regional income made up of government transfer payments -- unemployment compensation, food stamps, Aid to Families with Dependent Children (AFDC), Social Security pensions, etc. -- as opposed to wages and salaries. Figure 5 shows that transfer payments vary greatly by region. While the state average was 12 percent in 1984, the Northeast region received over one-fifth of its income in the form of transfer payments. The West region, at 16.5 percent, was also well above the state average.

These two measurements, however, are not the best indicators of distress in rural areas because farmers are not included in labor force statistics and do not qualify for unemployment compensation benefits.

FIGURE 4

AVERAGE UNEMPLOYMENT RATE

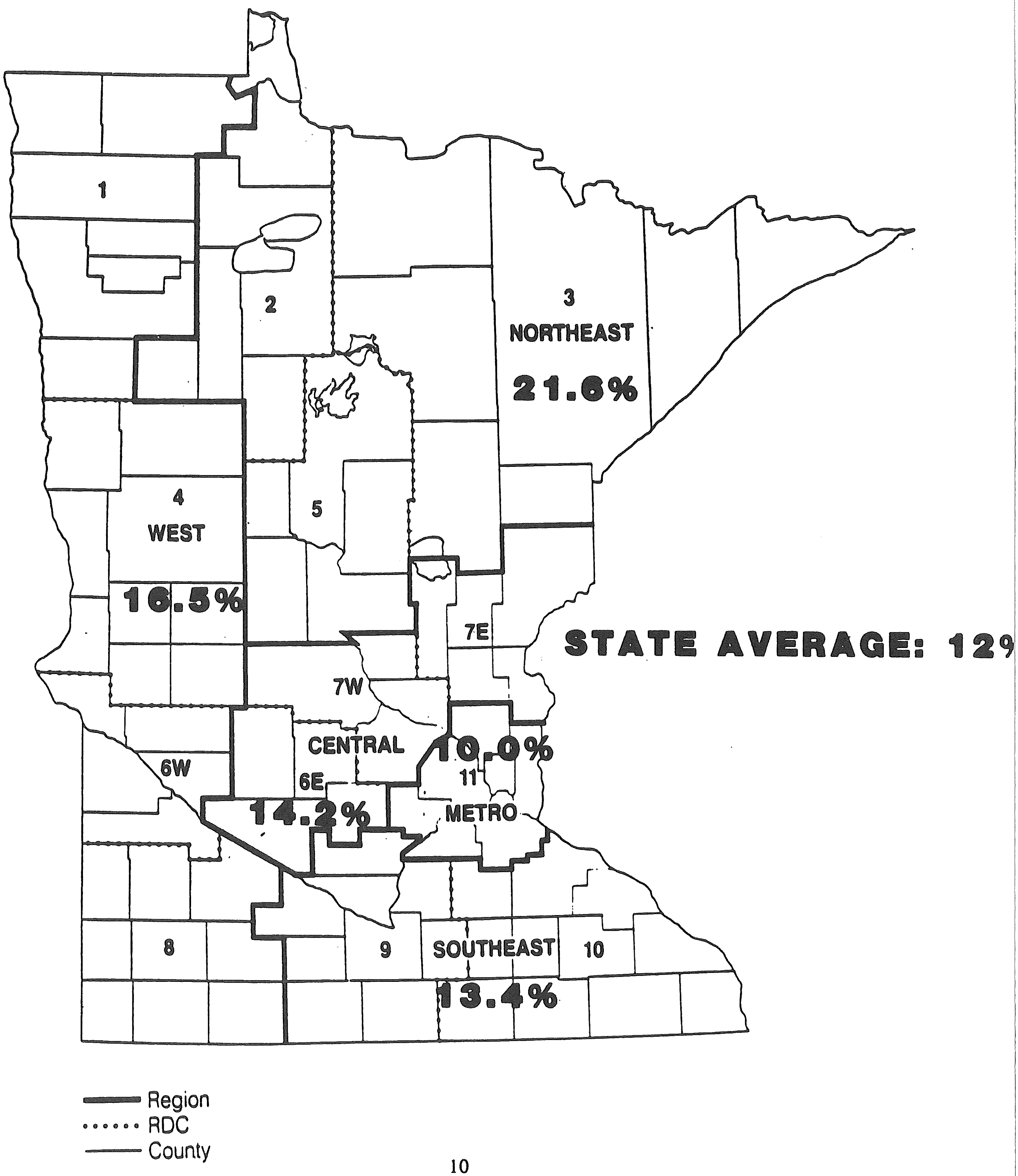
1980-1986



NOTE: 1986 DATA JANUARY THROUGH AUGUST

FIGURE 5

PERCENTAGE OF REGIONAL INCOME
FROM TRANSFER PAYMENTS, 1984



They also often do not qualify for other forms of public assistance because of their large assets in the form of farm equipment and machinery.

A better measure of distress in agricultural areas is population declines, which reflect those leaving the farm, young people seeking better economic opportunities in other locales, and the loss of rural businesses dependent on agriculture. Figure 6 shows the percentage loss of population by county between 1980 and 1985. While several northern counties experienced significant population declines during this period, the predominantly rural counties in the western, southern and southwestern parts of the state also saw their population base eroding. Several counties suffered sharp declines over this relatively short time: Watonwan (12.6 percent), Traverse (6.4 percent), Cottonwood (6.9 percent), Yellow Medicine (6.3 percent), and Faribault (5.1 percent). Not surprisingly, these large losses are occurring in the area of the state where financial distress among farmers is highest.

Finally, a measurement of the trends in real median family income in various parts of the state gives some indication of regional distress. Figure 7 shows 1984 real median family income for the five state regions and how it has changed since 1979. The Metro region had by far the highest median family income at over $32,000, though this declined slightly in real terms over the previous five years. Only the Central region showed an increase in real income during this period.

The lowest median family incomes were posted by the West and Northeast regions, at $18,040 and $20,898, respectively. Both regions experienced real declines of over 13 percent between 1979 and 1984. As a result, the income gap between the Southeast, West and Northeast on the one hand, and the Metro and Central regions on the other, widened significantly over this period.

D. Conclusion

The economic realities of the 1980s present serious challenges to Minnesota. The dislocations described above are not merely cyclical in nature; we cannot simply "wait them out" and hope to resume our place on the upward growth path of the 1960s and early 1970s. The underlying forces responsible for that growth no longer operate.

The new conditions have produced and will continue to produce permanent structural changes in the Minnesota economy. This does not mean that the state will never again experience sustained periods of prosperity, only that the basis for our prosperity in the future is likely to be much different from the economic activities responsible for the "golden years" of the past.

At least three challenges face the Minnesota economy, and Greater Minnesota in particular:

- To shift its economic base from industries that are in decline to those which exhibit a real potential for future growth.

- To diversify rural economies to make them both less susceptible to cyclical economic downturns and less dependent on any single industry.

FIGURE 6

PERCENTAGE DECLINE IN COUNTY
POPULATION, 1980-1985

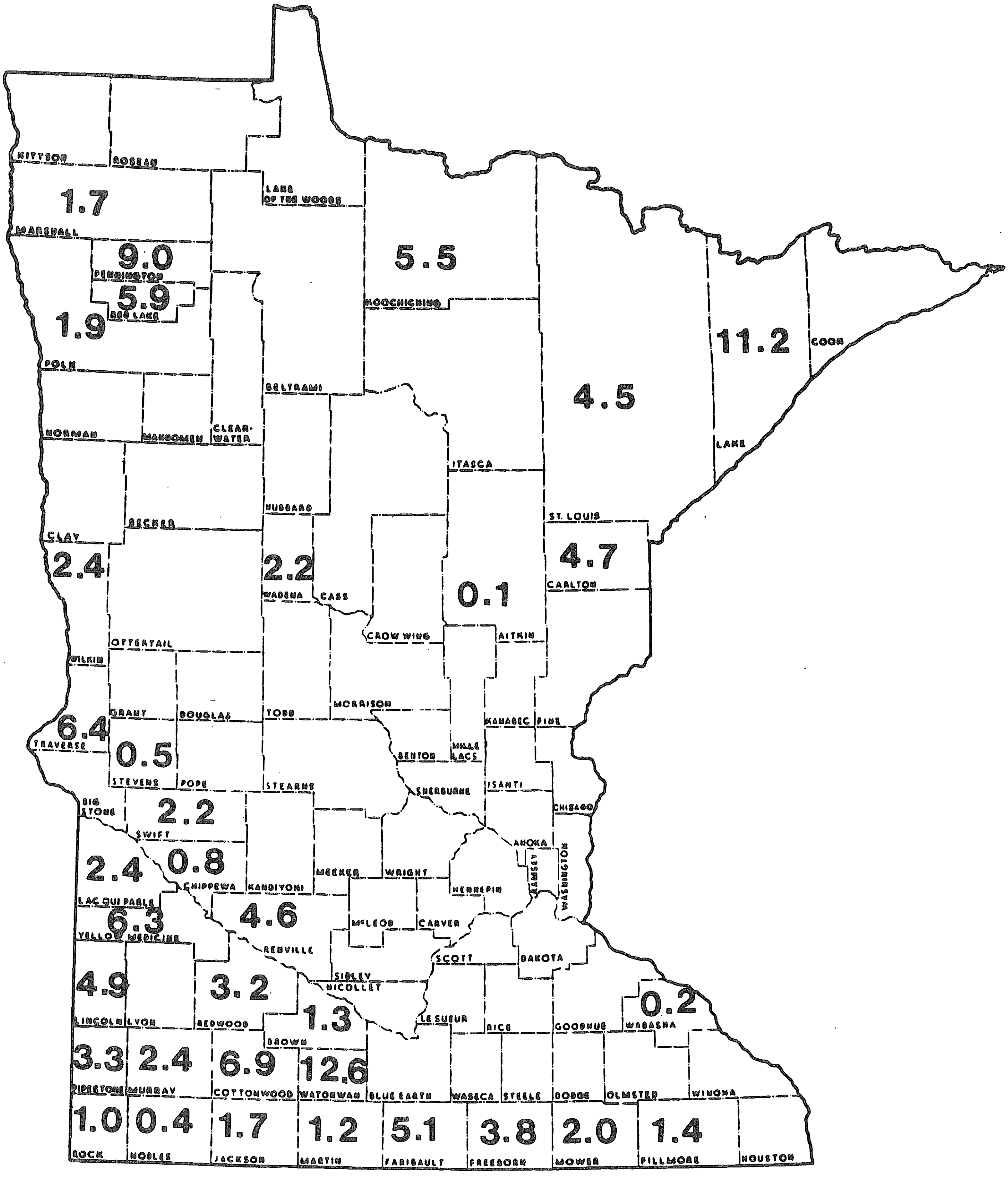
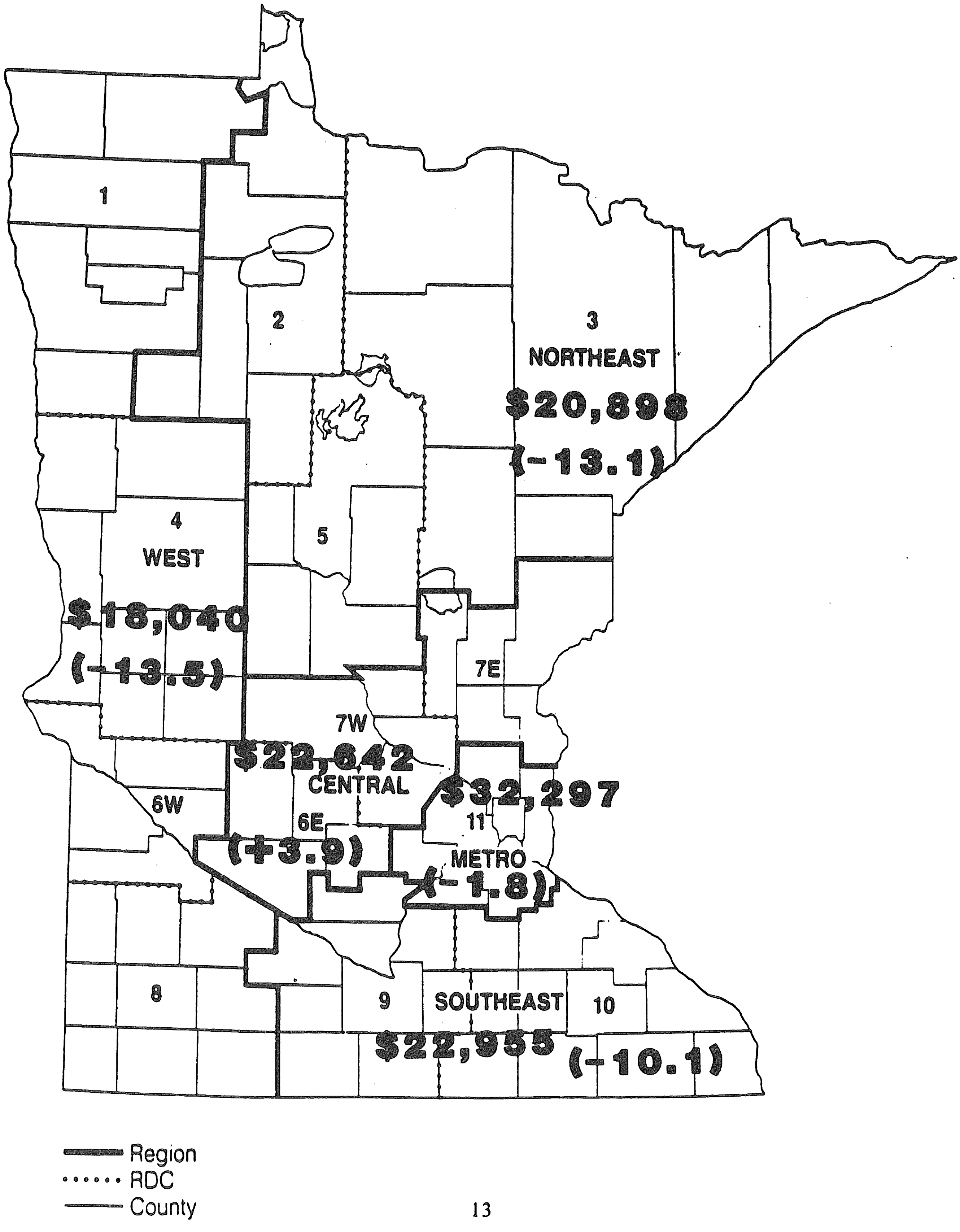


FIGURE 7

REAL MEDIAN FAMILY INCOME, 1984,

AND PERCENTAGE CHANGE, 1979-1984



- o To generate enough opportunities for farmers and their families to obtain income off the farm so that family farms can continue to operate.

How will these three strategies of transition be realized? In a market economy, the economic decisions of millions of individual businesses and consumers collectively forge patterns of economic development. Federal and state agencies will also play a part, with education and training programs that upgrade the skills of workers moving to new occupations, and income maintenance programs that maintain the purchasing power of those who are temporarily unemployed. Various agricultural programs will help farmers seek new markets for their products.

DEED believes it also has a role to play in helping Minnesota to make this transition to the economy of the future as smoothly as possible. That role is, necessarily, a marginal one. DEED's economic development funding programs amount to well under one-half of one percent of all the commercial and industrial loans made by Minnesota banks in any given year.

Nevertheless, DEED feels that it can perform a valuable function by speeding up and easing the transition in Greater Minnesota. The Department's conception of its role and of the contributions it can make to this important goal is the subject of the rest of this report.

II. The Process of Economic Growth

A. How Growth Occurs

Economic growth is one key solution to Greater Minnesota's structural economic problems. Regional economies which have hitherto been dependent for much of their employment and income on a single industry -- mining or agriculture -- must be made more diversified and stable.

While this prescription is universally agreed upon, the means of realizing it are not. Although economic growth is the most basic cause of the tremendous changes that have occurred in all areas of life over the past two centuries, we understand little about the process itself, as witnessed by our inability to replicate it in many Third World countries or even in parts of our own, such as Appalachia, despite massive infusions of capital.

It is not simply a matter of locating factories in rural areas and waiting for the spark to light. An economy is not an army, with industries to be deployed wherever policymakers see fit. Diversified economies are more akin to organic entities whose parts are closely interrelated -- and which do not grow and thrive in all soils.

The economies of cities, regions and nations grow in two ways: through the substitution of home-made goods for those previously imported from beyond the area's boundaries, and by exporting goods to other locations so as to create positive net income flows. Important to both processes are innovation, improvisation, adaptability and flexibility in design, materials and methods of production.

Exports and import substitution rely on the vast chain of interconnections among supplying firms to achieve their effects. For example, the increased production of computers stimulates the output of all the industries which produce inputs for computers: plastics, electronic circuitry, etc., increasing their incomes and employment levels. These sectors, in turn, further stimulate demand among their own input industries: machinery for molding plastics and primary metals industries. These are examples of "backward linkages" to the computer industry; "forward linkages" also exist, such as the production of software or wholesaling or retailing operations.

Thus, a wide array of firms in different industries and in different locations are dependent on each other's fortunes. These forward and backward linkages are called "secondary effects" of the original impetus given to the computer industry. Another category of impacts called "induced effects" includes the retail spending of the workers employed in the industries which receive the secondary effects. Their purchases of food, clothing, furniture and other goods also stimulate demand in these industries, which in turn produce secondary and induced effects among their supplier firms.

The process of economic growth resembles the effects of a stone thrown into a pond, as waves emanate outward from the initial stimulus. As an economic stimulus moves throughout the economy via its linkages, dollars get spent and respent in various sectors. If we add up the total dollar amounts of the secondary and induced effects, we find that generally they outweigh the original increase in demand in one sector, often by amounts as great as 100 to 200 percent. Economists call this process the multiplier effect.

The crucial step is to have economic activities that can initiate this interconnected process of growth or which can be stimulated by growth centers located elsewhere. Much of greater Minnesota has become dependent on very narrow economic bases -- mining or agriculture -- which are undergoing severe economic stress. More varied economic activities, which can become centers of rippling economic expansion or linkages to such centers, need to be developed in these areas.

B. Minnesota's Export Industries

While statistics on import substitution by Minnesota firms are unavailable, DEED has studied the important role that companies which export goods outside the state play in the state's economy.

In 1984, Minnesota exports directly accounted for more than 380,000 jobs or 24 percent of total employment, and 36 percent of gross state product, the total dollar value of all goods and services produced in the state. Indirect exports, which include all intermediate inputs necessary to render exports to market, contributed an additional 357,000 jobs and 20 percent of gross state product. Total direct and indirect export contributions therefore account for roughly 44 percent of total state employment and more than 56 percent of gross state product, as shown below in Figure 8. It is the income from these exports, more than $70 billion in 1984, that supports the other half of the state's economy, which consists of goods and services produced locally for local consumption. Growth in export industries is the key to Minnesota's future economic health.

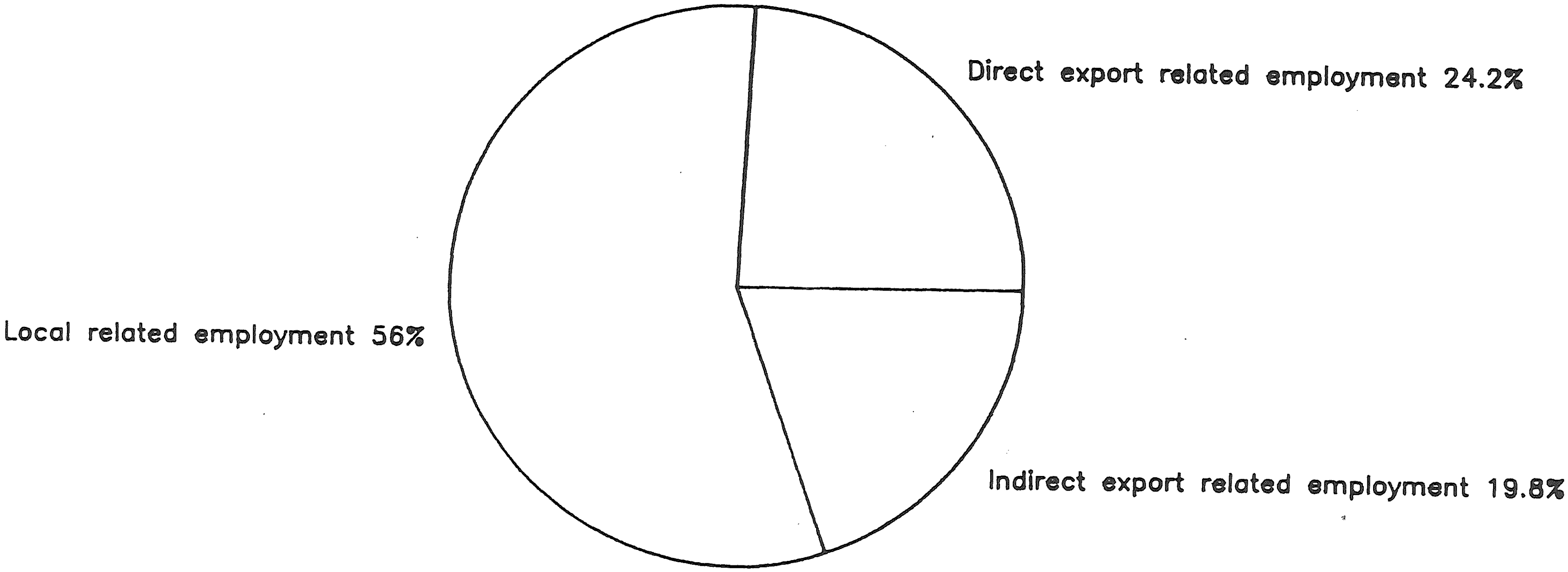
Figure 9 shows how manufactured goods dominate Minnesota's export industries. Though comprising less than one-quarter of total employment, the manufacturing sector accounts for almost two-thirds of the value of the state's exports. The trade sector accounts for almost 20 percent of export revenues. The major industry here is wholesale trade, reflecting Minnesota's position as a regional distribution center.

Mining and agriculture together contributed about eight percent of the state's total exports, while the remaining 11 percent was divided among finance, insurance and real estate (FIRE), services (mostly tourism, health and higher education) and transportation, communications and public utilities (TCPU).

It is interesting to note that while employment in non-goods producing industries has blossomed in recent years, the bulk of Minnesota's export revenues are still generated by goods-producing sectors. Indeed, these sectors are major consumers of services. More than 45 percent of all finance, insurance and real estate (FIRE) employment, 41 percent of all trade employment and 30 percent of employment in service industries are directly or indirectly tied to exports.

FIGURE 8

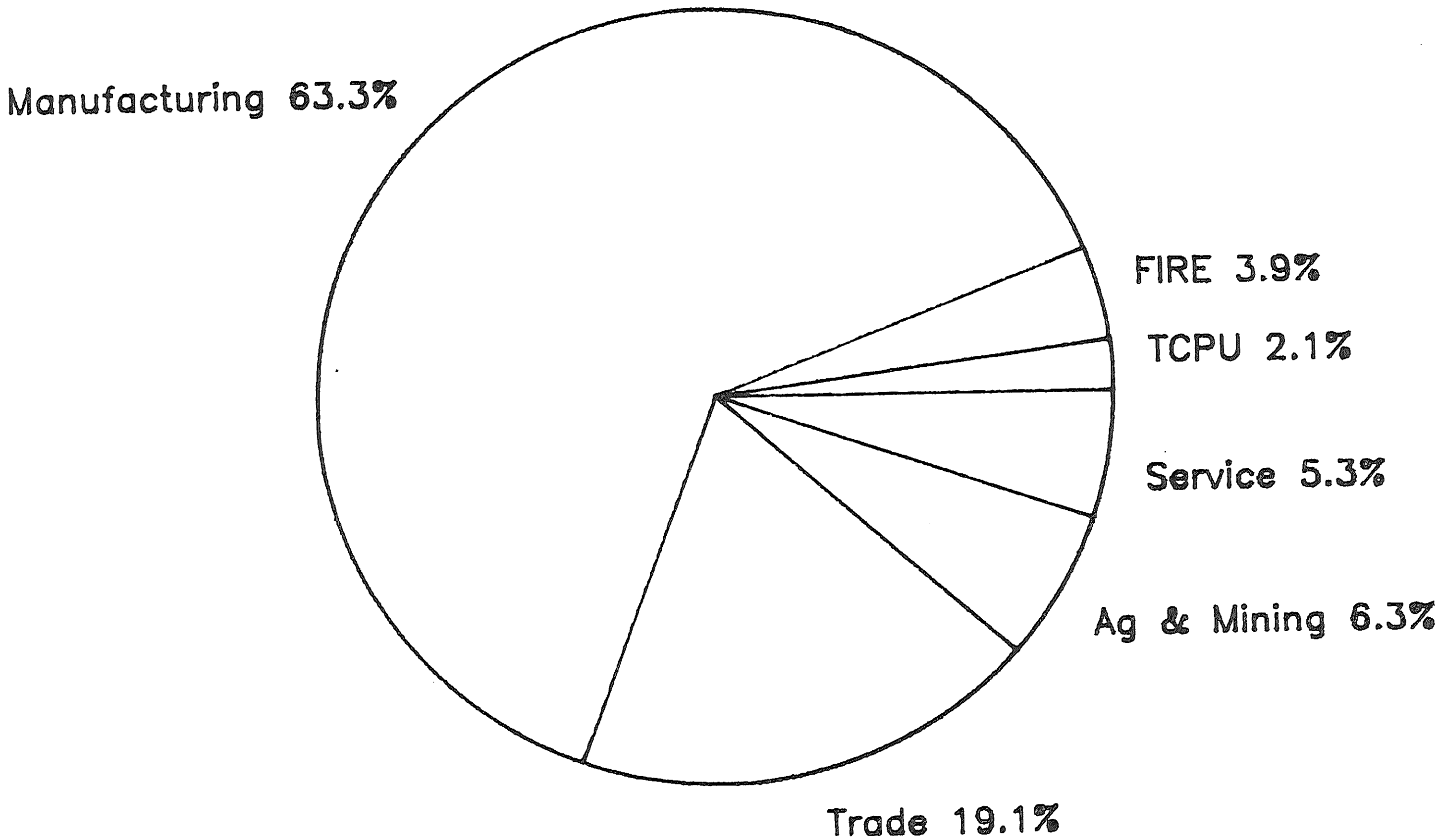
DISTRIBUTION OF MINNESOTA EMPLOYMENT
BY PRIMARY MARKET CLASS, 1984



SOURCE: DEED, POLICY ANALYSIS DIVISION, "MINNESOTA'S EXPORT BASE", 1986

FIGURE 9

DISTRIBUTION OF REVENUES FOR EXPORTING INDUSTRIES, BY INDUSTRY



SOURCE: DEPARTMENT OF ENERGY AND ECONOMIC DEVELOPMENT, POLICY ANALYSIS DIVISION, <u>MINNESOTA'S EXPORT BASE, 1986</u>

C. Who Creates Jobs

Data obtained by DEED from the Small Business Administration enables us to analyze job growth from a different perspective: To what extent is growth attributable to the birth of new firms as opposed to the expansion of existing firms? What role does the size of businesses play in job creation?

Table 2 presents data from Minnesota for the years 1976 through 1982. The net change in employment over this period is disaggregated into four categories: births (new firms), deaths (old firms that cease doing business in the state), expansions and contractions (employment fluctuations of existing firms). These variables are also examined for four different sizes of businesses, measured by employment levels.

Several interesting points emerge. First, expansions of existing firms created slightly more jobs than births of new firms in Minnesota during this period, while deaths greatly exceeded contractions. Second, very small firms (those with less than 20 employees) created more jobs in proportion to their share of total state employment in 1976 than did any other size class. That is, very small firms accounted for 24.1 percent of Minnesota's employment in 1976, but were responsible for the creation of 33.7 percent of all new jobs added to the economy over the next eight years. Small and medium firms added less than their proportional share of employment during this period, while the largest firms added just slightly more than their share.

However, it is also important to note that the large job creators are also more volatile than other size classes. Very small firms accounted for a higher proportion of jobs lost as a result of firm deaths than their proportion of total employment. The same was true of the proportion of jobs lost through the contractions of large firms. Greater growth and greater risk seem to go hand in hand.

Job growth can also be analyzed according to whether the firm is based in Minnesota or is a branch of a firm headquartered outside the state. As shown in Table 3, Minnesota-based firms accounted for over 81 percent of all jobs in the state in 1976 and for over 89 percent of the net new jobs added over the next eight years. Branches of firms with out-of-state headquarters employed about 19 percent of the state's labor force, but added only 11 percent of net new jobs between 1976 and 1984.

The bulk of these new jobs were created by independent single-location firms, which accounted for almost 62 percent of net jobs, much more than their 1976 proportion of employment. Branches of Minnesota firms added 27 percent of all new jobs, well above their 10 percent share of total employment. In contrast, corporate headquarters of Minnesota firms, which amounted to over one-fifth of total state employment, added less than 1 percent of the new jobs created over the 1976-1984 period.

This analysis indicates that with limited resources devoted to the stimulation of economic development, Minnesota should concentrate its efforts on home-grown businesses. Encouraging the establishment and expansion of Minnesota-based companies, especially of smaller firms, seems to be a prudent strategy to support job creation. Branching of

Minnesota-based firms is also an important tool for helping to diversify the economies of Greater Minnesota.

TABLE 2

COMPONENTS OF MINNESOTA EMPLOYMENT GROWTH, BY SIZE OF FIRM, 1976-1982

SIZE OF FIRM		BIRTHS	DEATHS	EXPANSION	CONTRACTION	NET CHANGE	1976 EMPLOYMENT
		1976-1982					
(No. of Jobs)							
Very Small	(0-19 employees)	93,785	-67,940	95,102	-35,342	85,605	316,190
Small	(20-99)	55,235	-42,532	59,297	-32,146	39,854	236,906
Medium	(100-499)	40,123	-39,342	48,847	-29,763	19,865	212,880
Large	(500 and above)	151,043	-95,889	104,495	-86,757	108,892	545,095
Total		340,186	-245,703	343,741	-184,008	254,216	1,311,071
Percent of Total							
Very Small	(0-19 employees)	27.6	27.7	27.7	19.2	33.7	24.1
Small	(20-99)	16.2	17.3	17.3	17.5	15.7	18.1
Medium	(100-499)	11.8	16.0	14.2	16.2	7.8	16.2
Large	(500 and above)	44.4	39.0	40.9	47.1	42.8	41.6
Total		100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: DEED, Policy Analysis Division, Understanding Job Growth in Minnesota, September 1986, Table 7.

TABLE 3

SHARE OF JOB GAINS AND LOSSES BY MINNESOTA-BASED FIRMS AND BRANCHES OF OUT-OF-STATE FIRMS, 1976-1984

	SHARE OF TOTAL JOBS, 1976	SHARE OF JOB GAINS, 1976-1984	SHARE OF JOB LOSSES, 1976-1984	SHARE OF NET NEW JOBS 1976-1984
Minnesota-Based Firms	81.2	81.9	78.2	89.2
Independents	48.2	50.9	45.7	61.7
Corporate Headquarters	22.7	14.2	20.9	0.4
Branches	10.2	16.8	11.6	27.1
Branches of Firms with Out-of-State Headquarters	18.8	18.1	21.8	10.8

SOURCE: DEED, Policy Analysis Division, Understanding Job Growth in Minnesota, September 1986, Tables 14 and 15.

III. Impediments to Economic Growth

Four factors can cause economic growth to lag behind its optimal rate: imperfections in the operations of markets, the dynamics of decline in distressed economic areas, incentives offered by other states to attract firms, and lack of infrastructure. This section examines each of these factors.

A. Market Imperfections

The economic interactions of millions of private individuals and businesses are responsible for the extraordinary levels of growth achieved by the American economy. Yet the economy's potential for growth is even greater. Part of the reason we fall short of this potential is that markets are, in the economist's jargon, not "perfect." By this term, economists mean that barriers exist that prevent market forces from maximizing growth. That is, some opportunities for the productive employment of capital and other resources will not be realized. As a result, the natural workings of the marketplace may not be sufficient to solve the economic problems of Greater Minnesota.

Lack of complete information is a widespread market imperfection. For example, businesses cannot be aware of all the companies that supply inputs to their production process, even though their costs of doing business may be lowered by using these alternate suppliers.

Lack of information is a particularly important market imperfection with respect to state economic development efforts. It is impossible for all firms to know the costs of doing business in thousands of localities throughout the fifty states. Information on nonmetropolitan locations is hard to come by, and is often not sought out at all.

Even analytical attempts to compare states on various business-related variables are often deficient. Grant Thornton's Annual General Manufacturing Climates Study is one of the most highly-publicized studies of this type. Yet business owners from other states who base their impression of Minnesota on its contents do not receive an accurate picture of the state.

For example, the most recent Grant Thornton study published in June 1986 contains data on state taxes from 1983 and 1984, well before the Legislature's sizeable tax cuts. In the study's rankings, Minnesota's tax climate thus appears to be much worse than it actually is. (Grant Thornton's tax variable is also given entirely too much weight, 36 percent, in constructing the study's overall state ranking. On average, state taxes represent only about three percent of a firm's total business costs.)

Information gaps also exist with respect to Minnesota firms seeking new markets for their products, especially overseas. Questions about finding foreign distributors, export documentation, negotiating agreements and other related topics can inhibit firms from entering export markets. As with lack of accurate information about Minnesota as a business location, the information gap surrounding the exporting process also negatively affects the state's growth rate.

A second type of market imperfection that inhibits state growth is found in capital markets. When capital markets function imperfectly, some businesses can be denied credit even though they are willing borrowers, pose acceptable risks, and are able to repay loans on a timely basis. These market failures occur even though banks are willing lenders, following sound banking practices. Evidence suggests that these capital gaps are most likely to occur in rural areas. Capital market imperfections of relevance to Greater Minnesota are discussed below.

Screening

Banks incur costs for evaluating loan applications and for processing and administering a loan package. Given two otherwise identically creditworthy firms, the applicant with higher transactions costs is less likely to be funded.

Banks can screen applications on a number of borrower characteristics in order to minimize transactions costs. For example, transactions costs are lower when the bank knows the borrower, the community in which the business is located or the industry in which the business operates. A bank may systematically turn away would-be borrowers who do not possess these characteristics.

Market Power

Another capital market imperfection is the existence of market power by banks, which serves both to raise the price of loans above their competitive level and to restrict the number of loans made.

DEED has investigated loans made by Minnesota's banks and savings and loan institutions in 44 bank market areas in the state as defined by the Federal Reserve Bank of Minneapolis. The study, utilizing the definition of market power currently used by the U.S. Department of Justice for antitrust purposes, attempted to measure the degree of market concentration in each area, i.e., the extent to which a large proportion of total loans was made by only a few banks. The study found that 28 of the market areas in the state were highly concentrated. Fifteen areas were moderately concentrated while only one was unconcentrated and, therefore, fully competitive (Figure 10).

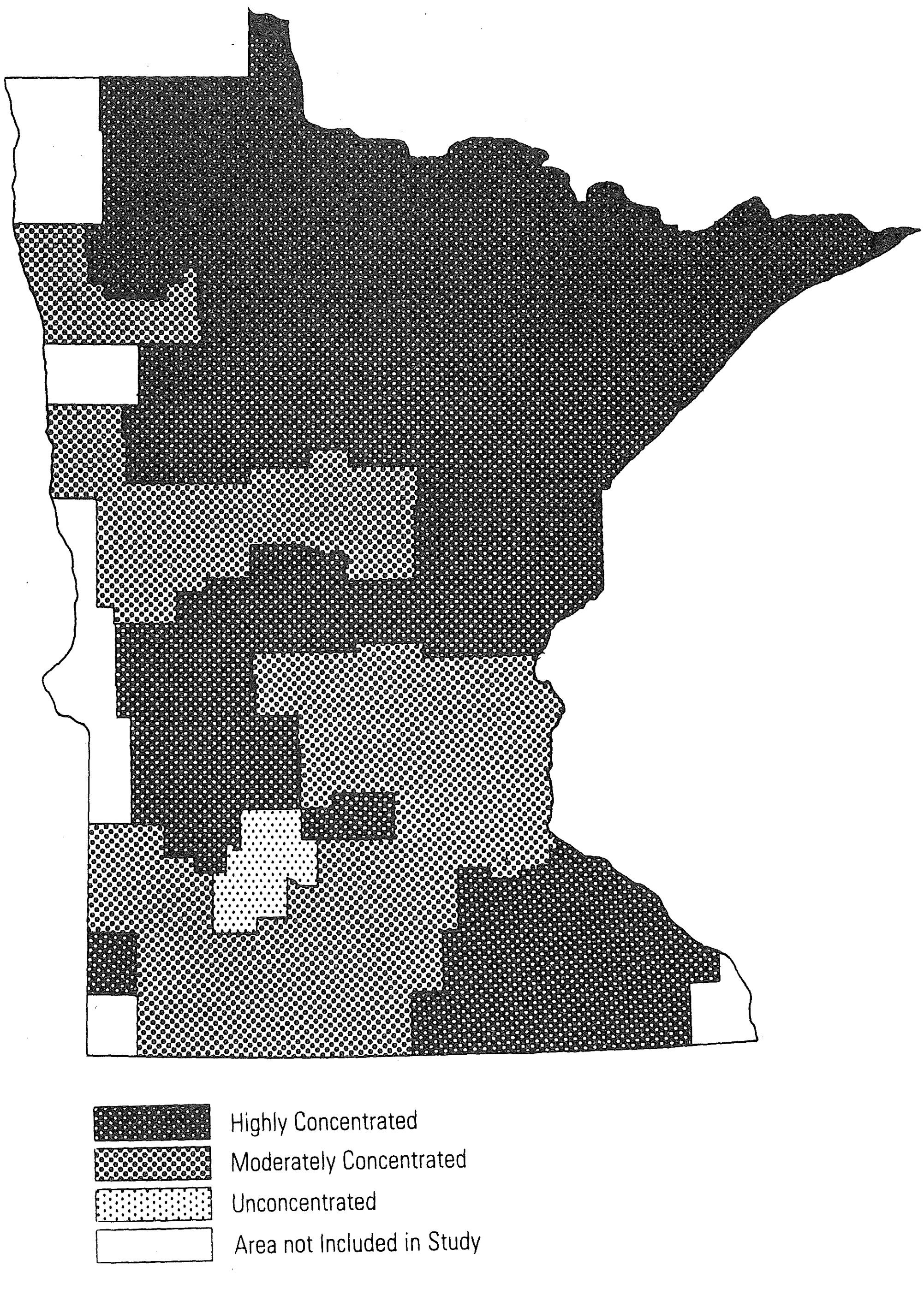
These results show that in many areas of the state, particularly in Greater Minnesota, commercial lending activity is dominated by only a few banks. This does not prove that banks are exercising market power, only that the potential to do so exists. In these markets business credit could be restricted. This information lends credence to the argument that borrowers may have restricted access to credit in their own geographic areas. And, if the borrower is "screened out" by banks located in more distant areas, overall commercial credit could be restricted even to creditworthy borrowers.

Collateral

Banks rightly deny loans to firms without sufficient collateral in order to protect the bank's position should the borrower default. However, the amount of collateral possessed by a firm does not affect the likelihood of default. Thus, firms that may have the same probability of repayment but are in industries with relatively low amounts of physical capital, such as service industries, are less likely to receive credit. This does not protect

FIGURE 10

CONCENTRATION LEVELS IN BANK MARKET AREAS
BY VOLUME OF COMMERCIAL AND INDUSTRIAL LOANS



society's interest in providing money for productive projects.

Risk Spreading

Banks regularly reduce the risk of any given loan by spreading it among several creditors, each of which holds a small part of the debt. The impact of a loss of $1 million to a single creditor is much greater than the impact on 10 creditors of losing $100,000. Banks that do not engage in such risk spreading may simply not make such loans.

Evidence exists that small banks and especially rural banks, may have less experience in assembling these complex loans. A study of non-metropolitan banks in Wisconsin found that 40 percent had made no complex loans at all - no guaranteed loans, no loans made over the bank's allowable lending limit, and no loans sold to other banks. To the extent that this occurs, creditworthy borrowers may not get funding.

Asset Regulation

Banks are federally regulated in order to reduce the risk of failures, runs on the banking system, and to maintain the soundness of the monetary system. The nature of this regulation results in limiting the number of higher risk loans a bank will hold.

This restriction is especially relevant to Minnesota banks at the present time, given the substantial volume of agricultural loans they hold which have a high perceived risk. As a result, the level of acceptable risk on new loans is reduced, lowering the amount of available credit to applicants who would be considered creditworthy if the bank had a somewhat different loan portfolio.

Property Taxes

Minnesota has a complex system of property taxation. Since the state rebates over half the property taxes on residential property, mill rates will differ among communities depending on their relative proportion of residential and commercial/industrial property. Generally, communities with smaller shares of commercial/industrial property will have higher mill rates. Thus, two similar businesses in different communities may pay different amounts of property taxes.

If these differential tax levels do not correspond to different levels of public services, they may be capitalized into the value of the property. That is, the market value of the highly taxed business property will fall in order to counterbalance the higher tax bill. As a result, the property's collateral value is lower for businesses in such communities, thus making it possible that credit is less available to these businesses.

Public Goods

Economists define public goods as those whose benefits are difficult to exclude from those who have not paid for the good. Clean air, national defense and radio signals are classic examples of public goods.

In most loans to private firms, the benefits are reaped only by the firm itself. There are cases, however, where the benefits of an investment project accrue to both the private firm that makes the investment and to the public-at-large. Yet banks can consider only the private benefits of a loan; even if the sum of private and public benefits from the project warrants granting the loan, it may be denied.

Undiversified/Distressed Areas

Private lenders may fail to extend credit to creditworthy businesses which are located in areas that are suffering from economic stress.

As a result of the capital market imperfections discussed in this section, many creditworthy businesses in Minnesota may be unable to obtain access to capital they need in order to grow. This is especially likely to be the case in rural areas, where greater market power, less risk spreading, and higher-risk portfolios are more prevalent. Thus, credit may be denied in precisely those areas where growth most needs to be fostered.

B. Distressed Areas

As described in Section II, the process of economic growth takes place among a vast chain of interdependent firms. Growth in demand for the output of one sector of the local economy stimulates the growth of demand for inputs into that firm's production process. These inputs are in turn the outputs of other sectors, which also experience growth. The initial stimulus reverberates throughout the entire economy, spreading out in "echoes" of growth ever more distantly related to the original increase in demand.

Unfortunately, the process works in a similar fashion in reverse. When demand declines in a particular industry or a firm leaves an area, the suppliers of its inputs will also suffer, as will the suppliers to these latter firms, and so on down the line. As employment is cut back in these firms, retailers dependent on the spending of these employees will also feel the pinch.

In this way, economic distress spreads from industries and firms which are directly affected by contractions in demand for their products to firms which may be in perfectly healthy industries. The severity of decline is heightened in those communities whose economies are undiversified. When the firm or industry upon which a disproportionate share of the local economy is dependent goes into decline, the secondary impact on other businesses in the community can be swift and sharp.

Often, a "spiral of decline" begins to operate. As more jobs are lost and businesses close, the tax base shrinks, forcing increases on those residents and businesses remaining. If fewer taxes are collected, public services begin to decline, making it more difficult to retain or attract new firms. Young people begin to leave the community for better opportunities elsewhere, shrinking the potential labor pool that could attract new firms. Land values decline, further eroding the tax base.

For example, the decline in the value of Minnesota farmland has devastated the local tax base in many rural communities. In the state's southwestern corner, land values fell by 54 percent between 1981 and 1986. Statewide average land values declined by 26 percent between April 1985 and

February 1986, the steepest drop in the nation. This situation seriously threatens the ability of local governments and school districts to continue providing services in the future.

Once such spirals begin, the fruits of growth that may have taken a generation or more to mature can be wiped out in a short time. New investment that would have occurred in such a community locates elsewhere. Many communities stagnate for years, or simply die.

The sharp declines in several sectors of the Northeast region's manufacturing base and the losses of population in many southern Minnesota counties described in Section I should serve as warnings that such spirals may be underway in some areas of Minnesota.

C. Incentives of Other States

In a "perfect" marketplace there would be no artificial distortions of business costs in the form of subsidies or tax differences to entice firms to locate in particular geographic areas. Obviously, this is not the case. A publication called the Directory of Incentives for Business Investment and Development in the United States: A State-By-State Guide describes in detail over two dozen financial and nonfinancial incentives, tax exemptions, deductions, credits and other special treatment that states use to attract business development. This state-by-state description covers 587 pages. Clearly, the patterns of growth that result from this patchwork of incentives differs greatly from those which would occur in its absence.

D. Lack of Infrastructure

Another factor that may inhibit economic growth in certain areas is a lack of infrastructure that industry needs in order to do business, such as adequate water, sewage and road systems. For example, the effluents of 150 Minnesota towns are not in compliance with federal clean water laws, and 223 communities in the state have no sewers at all. Industries which require large amounts of water cannot locate in such areas without making prohibitively costly investments. This would also be true of any establishment with a work force that is large in proportion to a community's current population. Many towns cannot accommodate the residential infrastructure needs such growth would bring in its wake.

Lack of adequate infrastructure severely restricts the locations where significant economic development can occur, especially in rural areas of the state.

IV. Reasons for State Government Involvement to Promote Economic Growth

A. Counterbalancing Market Imperfections

The market imperfections discussed in Section III reduce the level of growth achieved by the free operation of the market, especially in rural Minnesota. Under such conditions, economists recognize that it is proper for government to attempt to counterbalance these imperfections in order to allow the economy to reach its full growth potential. The role of government is not to thwart the actions of the private market economy but to contribute to its efficient operation.

Government is the only institution that can address these imperfections. For example, it would make no sense for a private firm to offer information only on Minnesota as a business location. Firms contemplating moving would not pay for such information (though they do pay firms to evaluate and compare several locations). Although many firms and cities in the state benefit from the growth of new businesses, these gains are spread widely. Only the state as a whole captures enough of them to justify expenditures on such information programs. This is also true for the opening of trade offices in foreign countries to channel trade leads back to Minnesota companies.

Similarly, the imperfections in capital markets described above illustrate the ways in which projects with perfectly acceptable risks of default can go unfunded because they fall through cracks in the private lending system. State assistance in such cases does not crowd out private capital, which has already declined to participate. It does, however, enable significant benefits to the state as a whole to be realized, in the form of greater employment, a broader tax base, etc. State governments should act in order to insure that these public benefits are not foregone.

B. Helping Distressed Areas

State governments also have an interest in intervening in areas suffering from economic distress in order to slow or prevent the "spiral of decline." To the extent that it can reduce unemployment and welfare costs, halt the decline in the tax base, and lower population out-migration from these areas, such intervention actually reduces public expenditures in the long run.

Government efforts in these areas are no longer limited to programs aimed at income maintenance of the population, but also include a range of activities whose goals are to create or retain jobs in the community.

C. Meeting Incentives Offered by Other States

The fact that some states offer economic inducements to companies to influence their location decisions puts pressure on other states to do likewise. The situation is analogous to that of spectators at a football game. If those sitting in front stand up, so must those behind them, if only to maintain their former view. The collective result is that all spectators are paying higher costs (the discomfort of standing) to receive the same benefits as before.

With many states offering incentives, any individual state feels that it must do so also, just to maintain its relative position. Not to do so means falling behind, even though offering such inducements does not necessarily mean getting ahead.

D. Helping to Finance Infrastructure

Declining federal support for infrastructure projects has led to greater state involvement. For example, a decade ago the federal government covered 90 percent of the cost of construction of sewage-treatment facilities; currently, such grants cover only 55 percent of such costs. At the same time, federal grant dollars to Minnesota communities for such facilities have fallen from $172 million to about $45 million, while demand for them has not abated.

The four policies described in this section - counterbalancing market imperfections, helping distressed areas to avoid the "spiral of decline," meeting financial incentives offered by other states, and helping to fund infrastructure - are important functions state government can play to overcome impediments to growth. The next section tells how DEED programs are targeted toward reducing those barriers.

V. How DEED Programs Address Impediments to Growth and Facilitate Business Formation and Expansion

A. Addressing Market Imperfections

1. Filling the Information Gap

One of the most important functions DEED performs is marketing Minnesota, informing firms contemplating expanding or moving their operations about the state's strengths as a business location. These efforts have taken several approaches. First, advertisements were placed in business periodicals with both local and national circulations (Corporate Report, Minnesota Business Journal, Time, Fortune, Business Week) promoting the state and publicizing DEED's willingness to help businesses. Direct contact was also made with about 20,000 out-of-state firms through a direct-mail campaign and with more than 2,000 Minnesota manufacturers through a telemarketing effort.

An innovative marketing program developed jointly by DEED's marketing and analytical staff is currently underway that will be aimed more precisely at industries whose characteristics -- materials and service inputs, occupational profile, transportation requirements, energy needs, etc. -- match up particularly well with Minnesota's attributes in these areas. A direct mail campaign to 10,000 firms nationwide in about 30 key industries will describe in some detail why Minnesota is a prime location for firms in those industries.

In the international arena, the Minnesota Trade Office supplies information to both potential Minnesota exporters and to firms in foreign countries that are potential importers of Minnesota products. Workshops are held throughout Minnesota to acquaint companies with the practical details of exporting, such as developing a marketing plan, financing, export documentation and the like. The office also organizes industry-specific trade missions to facilitate direct contact between Minnesotans and overseas firms, and conducts tours of Minnesota companies for foreign trade delegations.

Information about Minnesota is also disseminated through its three trade offices opened in Scandanavia. These offices encourage foreign firms to locate branches of their operations in Minnesota and also channel trade leads back to Minnesota companies.

While marketing at the state level is important, DEED recognizes that part of the "information gap" inhibiting development is present in communities throughout the state whose officials are uncertain as to how they can initiate the process. It is crucial that local officials master the range of skills necessary to promote economic development at the grassroots level. This is the major goal of the Star Cities Program, in which all Minnesota cities are eligible to participate. Although Department staff provides technical assistance the actual work in completing the program must be done by the city and its residents.

Among the steps that must be completed in order to earn Star City designation are the following:

- The city must establish an organization representing a broad range of community organizations and expertise to run the program.
- A local development corporation must be created.
- A community profile must be prepared, along with a slide presentation portraying the economic and social characteristics of the area.
- A five-year plan and strategy for economic development must be drafted.
- A marketing brochure for potential developers must be printed.

The economic development skills that must be learned in order to complete these tasks enable communities to effectively pursue development on their own behalf long after the program has ended.

A similar program to Star Cities is the Economic Development Training Assistance Program, which also teaches such skills to community leaders from the private and public sectors in cities throughout Minnesota. The program has received over 70 applications from cities since its inauguration in October 1985. The program goal is to provide these services to about 100 cities each year in an attempt to catalyze development efforts at the local level.

Yet another information gap exists among small business owners in areas of regulation, taxation, licensing, financing, marketing and other topics. DEED's Small Business Assistance Office answered over 11,000 such inquiries in Fiscal Year 1985 in its attempts to lower the cost of information for small businesses.

In addition, eighty-three workshops and seminars on small businesses were conducted throughout the state in that year, most often in conjunction with groups such as the federal Small Business Administration, local chambers of commerce, state and local educational institutions, and others. The Office also publishes and distributes over a dozen publications on state requirements and programs targeted to small businesses.

DEED's Policy Analysis Division and its Office of Development Resources also provide information directly to businesses that inquire about market trends, economic conditions, site locations and many other topics.

2. Addressing Capital Market Imperfections

As discussed in Section III the market for business credit does not function perfectly. A small business may face undue credit rationing because of such market failures, which occur even though banks are willing lenders and follow sound banking practices.

DEED's business loan programs are directed toward closing these capital gaps, as well as serving other policy goals. One way of measuring the extent to which this occurs is to construct a scorecard, such as in Table 4. This allows us to determine whether the five DEED loan programs listed across the top of the chart potentially address capital market failures. The five loan programs listed are the Minnesota Fund, Tourism Loan Program, Small Business Development Loan Program, Opportunities Minnesota, Inc. (OMNI), and the Economic Recovery Fund. (Descriptions of these programs can be found in the Appendix.)

In order to qualify for an "X" in the corresponding matrix cell, each program must potentially offset certain market failures. (These are described in Section III.A.) The criteria for counteracting these market failures are as follows:

- o Screening

  a. Small Borrower - The program must be targeted to small businesses.

  b. Certain Industries - An "X" means the state is targeting an industry likely to be screened-out by banks. For example, in the tourism industry, banks may avoid lending because of the seasonal nature of business receipts. State Tourism Loans frequently allow seasonal repayment cycles.

- o Collateral

  An "X" means the state program takes a secondary position to a primary lender on collateral and/or the program lends working capital.

- o Failure to Spread Risk

  An "X" in this category indicates that the state and private lenders must cooperate in providing the loan, thus spreading the risk of default among several parties.

- o Market Concentration

  Of the 79 counties examined, 40 percent are wholly or partially in areas of high banking concentration by bank assets. An "X" in this cell means that more than 40 percent of the program's loans are in such areas.

- o Bank Regulation

  A program that provides loans for a wide range of businesses, increasing the general availability of credit, receives an "X"; a program targeted to specific industries does not.

- o Property Tax Policies

  An "X" indicates that at least half the loans went to businesses located in non-Twin Cities communities with mill rates higher than average in payable 1985 for communities of that size.*

---

* This category requires cautious interpretation. A higher mill rate can mean the community provides more public services and, therefore, no capitalization is expected to occur; or, the higher mill rate can imply lower assessed values, higher effective tax rates on business, and no extra public services. In these communities, capitalization can occur. By comparing mill rates in like-sized communities, some of the variation in public services is reduced, but not all. Also, mill rates are for the mailing address of the firm and may not always be the same as the location of the firm.

o Public Goods

An "X" occurs if the program requires or encourages businesses that produce goods with public good characteristics. The Tourism Loan Program intends to preserve shoreline for public access; the ERF has been used to encourage historical theatres and to provide public sanitation facilities.

o Undiversified, Distressed Areas

About three in every 10 Minnesota counties has 8 percent or more unemployment and an undiversified economy. For each loan program, if more than three in 10 loans in a program is to firms in these counties, the cell contains an "X".

As shown in Table 4, the five programs listed address different capital gaps. It should not be expected that all programs address all gaps. The most effective and internally consistent programs will be those that are carefully designed to meet a few specific goals.

TABLE 4

DEED LOAN PROGRAMS AND CAPITAL MARKET FAILURES

CAPITAL MARKET FAILURE	PROGRAM				
	MINNESOTA FUND	TOURISM LOAN PROGRAM	SMALL BUSINESS DEVELOPMENT LOAN	OPPORTUNITIES, MINNESOTA, INC.	ECONOMIC RECOVERY FUND
Screening					
Small Borrower	X	X	X	X	
Certain Industries		X			
Collateral	X			X	X
Failure to Spread Risk	X	X		X	X
Market Concentration		X			
Bank Regulation					X
Property Tax		X			X
Public Good		X			X
Undiversified/ Distressed Areas		X			X

SOURCE: Julia Mason Friedman, Improvement of Capital Market Efficiency Through DEED Business Financing Programs, Technical Report to the Governor's Commission on the Economic Future, Draft, August 1986.

Although the programs can potentially fill the indicated capital market failures, they may not actually do so. It is possible that the state is making loans that otherwise would be provided by the private financial market. This is not likely to be the case for loans from the Minnesota Fund or OMNI programs, in which the state takes a second position on collateral. In order to minimize competition with private financing in other programs, a letter from the business or a private lender is often required attesting to the fact the the project is not possible without state participation.

In a follow-up survey to firms that received financial assistance from the programs listed in Table 4 (excluding the Tourism Loan Program), 90 percent of the 70 respondents indicated that the project would not have proceeded, would not have proceeded at the level it did, or would have proceeded in another state, had state funding not been available.

3. Exports and Job Creation

To what extent are DEED loan programs focused on those industries identified in Section II as being the engines of economic growth?

Table 5 lists the industries which received loans granted by the Minnesota Energy and Economic Development Authority (MEEDA) in FY 1984 and 1985. The first two columns show the number of loans greated and the percentage of total loan funds spent by industry. The third column reports the degree to which each of these industries exports its products outside Minnesota, bringing in income from other states.

Over 85 percent of all public funds spent in these two years went to firms in industries that exported over half their shipments outside the state. On average, the industries of firms which received loans exported 67 percent of their output.

It is also clear that the bulk of loans were made to goods-producing industries, which are more likely to have extensive and intricate backward and forward linkages than more labor-intensive service industries. They are thus more likely to have higher multipliers than the latter, meaning that they will stimulate to a greater degree the growth of other Minnesota companies and of the state as a whole.

The finding that very small businesses create a disproportionate share of new jobs is also reflected in DEED's loan policies. The statutes creating MEEDA specify that at least 50 percent of the loans made in any fiscal year must be under $100,000 and must go to businesses with 20 or fewer employees.

B. Assisting Distressed Areas

DEED's business financing programs are aimed at increasing business investment and employment opportunities in Greater Minnesota. A geographical breakdown of the activities of six programs -- the Federal and State Economic Recovery Fund, Minnesota Fund, Minnesota Plan, Opportunities Minnesota, Inc. (OMNI), Small Business Development Loan, and the Tourism Loan Program -- indicates that rural areas received the bulk of financial aid.

TABLE 5

DISTRIBUTION OF MINNESOTA ENERGY AND ECONOMIC DEVELOPMENT AUTHORITY (MEEDA) PUBLIC EXPENDITURES BY INDUSTRY AND BY LEVEL OF EXPORT ACTIVITY FY 1984 AND FY 1985

INDUSTRY	NUMBER OF LOANS GRANTED	PERCENT OF TOTAL PUBLIC FUNDS	PERCENT OF TOTAL INDUSTRY SHIPMENTS WHICH ARE EXPORT RELATED
Food & kindred products	21	22.1%	73%
Apparel	1	0.1	62
Lumber & wood products	16	5.4	80
Printing & publishing	9	4.2	57
Chemicals	3	1.4	80
Rubber & plastics	5	3.3	27
Leather	1	4.1	79
Stone, clay & glass	1	0.4	11
Fabricated metals	10	6.2	57
Non-electrical equipment	15	16.0	83
Electrical equipment	10	7.4	77
Transportation equipment	5	3.1	89
Scientific instruments	2	2.6	91
Miscellaneous manufacturing	4	2.5	75
Wholesale durables	2	1.3	41
Wholesale non-durables	2	0.8	48
Retail general merchandise	5	2.7	8
Eating & drinking places	1	0.5	17
Lodging	30	10.3	61
Automobile services	3	2.8	1
Amusement/recreation services	4	2.6	34
TOTAL/AVERAGE	150	100.0%	67%

SOURCE: Minnesota Department of Energy and Economic Development, Export Contribution of Selected Service Industries, March 1986, p. 2.

Table 6 shows the amount of public dollars spent on these programs from Fiscal Year 1984 through Fiscal Year 1986. About two-thirds of total spending of $63 million took place outside the Twin Cities Metro area. The Northeast region received the largest amount, $12.49 million, closely followed by the Central and Southeast regions. The West region received the smallest amount of funds over this period.

Table 6 also expresses these dollar amounts on a per capita basis to account for differences in population among the regions. Spending per capita in Greater Minnesota was more than twice that in the Metro region.

TABLE 6

DEED BUSINESS FINANCING PUBLIC SPENDING BY REGION, FY 1984 - FY 1986

REGION	AMOUNT ($ million)	PERCENT OF TOTAL	$ PER CAPITA
Northeast	$12.49	19.8	$23.42
West	8.46	13.4	16.87
Southeast	10.27	16.3	16.19
Central	11.74	18.6	25.90
Greater Minnesota	$42.96	68.2	21.16
Metro	20.06	31.8	9.37
TOTAL	$63.01	100.0	$14.42

SOURCE: DEED, Project Management System.

Since job creation is one of the major goals of these business financing programs, Table 7 presents a regional breakdown of the actual number of jobs created and retained through these activities as of September 30, 1986, based on telephone calls to each loan recipient. These figures show even more concentration in Greater Minnesota than the dollar amounts. Over 74 percent of the jobs retained and 85 percent of the jobs created as a result of DEED loan programs were in Greater Minnesota. The Southeast region boasted the largest number of retained jobs, almost 46 percent of the total. (One very large project which retained 1,449 jobs skewed this result.) Almost one of every three new jobs created was located in the Northeast, while the West and Southeast each captured about one-fifth of the total.

It is clear from this analysis that DEED has targeted the bulk of its efforts towards helping those areas of the state which are most in need of expanding and diversifying their economies.

TABLE 7

JOBS CREATED AND RETAINED BY DEED BUSINESS FINANCING PROGRAMS BY REGION AS OF SEPTEMBER 30, 1986

REGION	JOBS RETAINED	PERCENT	JOBS CREATED	PERCENT	TOTAL	PERCENT
Northeast	570	8.5	1,330	30.1	1,900	17.1
West	695	10.4	938	21.2	1,633	14.7
Southeast	3,042	45.5	970	22.0	4,012	36.2
Central	659	9.9	542	12.3	1,201	10.8
Greater Minnesota	4,966	74.4	3,780	85.6	8,537	78.8
Metro	1,717	25.6	635	14.4	2,352	21.2
TOTAL	6,683	100.0	4,415		10,967	100.0

NOTE: Programs include Federal and State Economic Recovery Fund, Minnesota Fund, Minnesota Plan, Opportunities Minnesota, Inc. (OMNI), Small Business Development Loan, and the Tourism Loan Program.

SOURCE: DEED, Project Management System.

C. Meeting Incentives of Other States

With many states now offering financial incentives to attract firms located in other areas, DEED must often be able to match such offers in order to retain existing firms or to attract new businesses.

A survey conducted by DEED of firms that received financial assistance through the Department's programs provides empirical evidence of this fact. Table 8 shows the percentage of respondents who answered that they would have proceeded with their development project in another state if DEED assistance had not been available. The frequency of such responses varied by program, from 0 percent under the OMNI program to 43 percent of those assistance packages combining two or more sources of aid. On average, more than one out of five businesses surveyed indicated they would not have located in Minnesota had aid not been forthcoming.

D. Helping to Fund Infrastructure

The Small Cities Development Program uses funds from the federal Department of Housing and Urban Development to assist in infrastructure development and housing rehabilitation in Minnesota communities.

Table 9 aggregates the construction projects completed between 1983 and 1985. Most of the activities undertaken in this period were centered on developing public water systems and streets.

TABLE 8

PERCENTAGE OF SURVEY REPONDENTS WHO REPORTED THEY WOULD HAVE LOCATED IN ANOTHER STATE HAD THEY NOT RECEIVED FINANCIAL AID FROM MINNESOTA

PROGRAM	PERCENTAGE
Minnesota Fund	37
OMNI	0
Small Bus. Dev. Loan	14
Economic Recovery Fund	29
Combination of programs	43
TOTAL	22 (N=77)

SOURCE: Minnesota Department of Energy and Economic Development, Policy Analysis Division, Results of the Business Characteristics Survey, Draft, December 1986.

TABLE 9

INFRASTRUCTURE BUILT WITH SMALL CITIES DEVELOPMENT PROGRAM FUNDS, 1983-1985

TYPE OF PROJECT	MEASURE
Streets	78,564 ft.
Sewerlines	65,952 ft.
Waterlines	61,757 ft
Storm Sewers	24,884 ft.
Sidewalks	4,000 ft.
Houses rehabilitated	1,613
Businesses rehabilitated	102
Sewer hookups	291
Watertowers/tanks	7
Water treatment plants	4
Wells	8
Firehalls	2

SOURCE: Minnesota Department of Energy and Economic Development, Community Development Division, Minnesota's 1986 Performance/Evaluation Report to the U.S. Department of Housing and Urban Development, October 1986.

Table 10 shows the distribution of these funds by region for the years 1983 through 1986. More than 60 percent of the monies went to the Northeast and West regions, whose local tax bases were most weakened by recent economic decline. The Metro region received less than 10 percent of these funds. When aid is computed on a per capita basis, the West and Northeast regions again are shown to be the major recipients.

TABLE 10

SMALL CITIES DEVELOPMENT PROGRAM AWARDS BY REGION, 1983-1986

REGION	AMOUNT ($ million)	PERCENT	$ PER CAPITA
Northeast	$21.44	27.6	$40.20
West	25.46	32.8	50.77
Southeast	16.41	21.1	25.88
Central	6.92	8.9	15.27
Greater Minnesota	70.23	90.3	35.64
Metro	7.52	9.7	3.69
TOTAL	$77.75	100.0	$18.68

SOURCE: Minnesota Department of Energy and Economic Development, Community Development Division, Unpublished data.

VI. CONCLUSION

Greater Minnesota faces the prospect of second-class economic status unless it begins now to institute changes to meet heightened global competition. The failure to successfully meet this challenge means not merely a lower standard of living, but also the demise of many communities in Greater Minnesota as viable places to live.

The problems will not disappear. Market forces alone cannot solve them. Under these conditions DEED has a crucial role to play in fashioning partnerships with communities to help them revitalize their economies. DEED's arsenal of tools -- information, business financing programs that respond to capital market failures and the incentives offered by other states, and financial aid for infrastructure development -- can help communities to diversify and strengthen their economies.

DEED occupies an important intermediary position: analyzing national and global economic trends that will affect Minnesota's economy, developing tools to help Minnesotans to survive and even capitalize on these changed conditions, and making these tools available to local communities for implementation at the grassroots level.

REFERENCES

Minnesota Department of Agriculture, Minnesota Farm Financial Survey-1985, Preliminary Summary Report, February 1986.

Minnesota Department of Energy and Economic Development, Community Development Division, Minnesota's 1986 Performance/Evaluation Report to the U.S. Department of Housing and Urban Development, October 1986.

Minnesota Department of Energy and Economic Development, Policy Analysis Division, Export Contribution of Selected Service Industries, March 1986.

Minnesota Department of Energy and Economic Development, Policy Analysis Division, Minnesota's Export Base, 1986.

Minnesota Department of Energy and Economic Development, Policy Analysis Division, Results of the Business Characteristics Survey, Draft, December 1986.

Minnesota Department of Energy and Economic Development, Policy Analysis Division, The Minnesota Department of Energy and Economic Development Addresses the Rural Crisis, February 1986.

Minnesota Department of Energy and Economic Development, Policy Analysis Division, Understanding Job Growth in Minnesota, September 1986.

Minnesota Extension Service, Interagency Task Force Report, Draft, January 1986.

1986 Economic Report to the Governor, State of Minnesota, Chapter 5, "Regional Trends."

1987 Economic Report to the Governor, State of Minnesota, Chapter 2, "Regional Economic Disparities," and Chapter 3, "The Geography of Job Growth."

Julia Mason Friedman, Improvement of Capital Market Efficiency Through DEED Financing Programs, Technical Report to the Governor's Commission on the Economic Future, Draft, August 1986.

Sheshunoff, Banks of Minnesota 1986 - National and Statwide Bank Performance Standards.

"18 state counties suffer most from farm export woes," Minneapolis Star and Tribune, October 26, 1986.

"Low exports hurt Great Lakes ports," Minneapolis Star and Tribune, November 11, 1986.

"Small towns face costly sewage mess," Minneapolis Star and Tribune, October 26, 1986.

"Special Report: Farm crisis heads for Twin Cities," Minnesota Agriculture, August 21, 1986.

"The Minnesota Rural Real Estate Market in 1985," Minnesota Agricultural Economist, January 1986.

APPENDIX

DEED FINANCIAL ASSISTANCE PROGRAMS

Economic Recovery Fund

The Economic Recovery Fund provides grants to local units of government to be used as gap financing loans for business expansions or start-ups. All projects must meet a minimum public purpose score based on private investment and jobs created. The maximum grant of $500,000 cannot exceed 50 percent of total project costs. The loan has a negotiated interest rate, a 5-year term for working capital, 10 years for machinery and equipment, and up to 20 years for real estate.

Small Business Development Loans

Small Business Development Loans offer long terms and fixed interest rates in amounts between $250,000 and $1 million, for fixed assets to assist expansions of small manufacturing businesses. DEED pools the loans and issues bonds to deliver a lower rate of interest to the borrower.

SBA 504 Loan Program (through OMNI)

The SBA 504 Loan Program (through OMNI) offers up to 40 percent financing for fixed assets, to a maximum $500,000 guaranteed by SBA. The local lending institution provides 50 percent of the financing, while the company contributes 10 percent. Interest on the SBA share is 1 1/2 percentage points over U.S. Treasury bonds of similar maturity. The term is 10 to 20 years. This financing is for small industry and manufacturing businesses with net worth up to $6 million.

Minnesota Fund

The Minnesota Fund offers direct loans on fixed assets for expansions of small manufacturing enterprises. The maximum loan of $250,000 cannot exceed 20 percent of the total project cost. The loan has a negotiated fixed interest rate, a 15-year term for land and buildings, 7 years for machinery.

Tourism Loan Program

The Tourism Loan Program is for renovation and expansion of small tourist accommodation businesses. It purchases participations in conventional bank loans and offers below-market interest rates, up to 10-year terms for land or buildings, and 5-year terms for equipment.

Agricultural Resources Loan Program

The new Agricultural Resources Loan Program involves the issuance of bonds or guarantees of loans of businesses operated primarily for the processing of agricultural products. The Minnesota Agricultural Resources Loan Guaranty Board approves funding, which can be used for almost any type of expense except working capital. At least 20 percent equity is required of the applicant. Terms, rates and maximum amounts will be determined by the board.