

**THE MINNESOTA ECONOMIC ENVIRONMENT: 1985**

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**Remarks presented to the conference, "Future Environment of Minnesota:  
The Educational Task," at Onamia, Minnesota, May 12-14, 1974.**

The British economist, John Maynard Keynes, writing in the 1930's, envisioned a future age of abundance in which the hitherto primary problem of mankind, the struggle for subsistence, would be solved. Man's permanent problem would therefore become "how to use his freedom from pressing economic cares, and how to occupy his leisure...to live wisely and agreeably and well."

Like other Americans, Minnesotans have not yet gained that "freedom from pressing economic cares" of which Keynes wrote. Nonetheless we have attained levels of affluence which for the average citizen were undreamed of only a half-century ago, and it is well to begin by counting our blessings. By many standards our economic system has performed admirably.

Per capita income had grown to \$4,300 by 1972 and is increasing at a slightly faster rate than in the nation. The state's people are skilled and well-educated. The problems of pollution, urban blight, and racial tension are less severe in Minnesota than in many other states. In many respects the state is a prototype of a good life that most Americans would find appealing, in that it combines urban grace and rustic charm as do few other areas in the nation.

However, problems still remain. As in other agrarian states a rapid out-migration has drained many rural areas of their vitality and has left them incapable of supplying necessary social services. Neither unprecedented levels of wealth nor welfare programs has been able to eliminate pockets of poverty in the economy. Urban centers face the problem of paying for a growing list of public services. Finally, for several reasons, one senses that many people are not comfortable with the way our economic system has been performing. Despite our affluence we have not learned to live "wisely, and agreeably, and well." Much of our wealth has been squandered on gadgetry. We have private riches, but are still groping for a sense of public purpose. And as a nation, though we have better than a trillion dollar GNP, we are not certain how we want to use it.

#### The Minnesota Economy in 1974

How has the Minnesota economic system evolved over time? Has it performed satisfactorily? Why have some of its sectors grown rapidly while others have hardly grown at all? What problems still exist today and where are we headed in the next decade? In answering these questions it seems wise to begin by describing what an economic system is and by surveying the present status of the Minnesota economy.

An economic system is used to organize the production, distribution, and consumption of goods and services as people go about the business of making a living. Economic activity is organized into sectors--

or subsystems--which differ according to the types of goods being produced. Examples of economic sectors are the manufacturing sector, the agricultural sector, the trade sector, and the services sector.

Economic systems, like other systems, are constantly changing. The demand for different goods and services changes as consumers gain more affluence or as their attitudes change. The discovery of new resources stimulates the growth of some sectors; the depletion of old resources results in the decline of other sectors. Over time new types of goods and services come into existence and supplant the already existing goods. Cost-saving technologies alter the ways in which some goods are produced and make established methods of production obsolete. All these changes are ultimately reflected in the growth of some economic sectors and in the stagnation of other sectors. More importantly, for a region or state, the decline of one sector may result in unemployment, poverty, and social decay.

By 1972 the total Minnesota civilian work force had grown to 1,690,000, equal to about 2 percent of the total U.S. labor force. Agriculture's share of total employment was small in both the nation and in Minnesota, but the farm sector was roughly twice as prominent in the Minnesota economy as in the nation (Chart 1). Manufacturing in Minnesota was slightly less important than in the U.S., but growing more rapidly. In both instances the major share of the manufacturing work force was employed in the durable goods industries. In Minnesota, only 7.6 percent of total employment was in agriculture; manufacturing accounted for 19.3 percent of total employment.

Fifteen percent of Minnesota's workers were employed in government in 1972; many of these were in education. Better than 20 percent of the work force was employed in the trades with nearly three-fourths of those being in the retail trades. More than one in five workers was employed in that diverse group of occupations called services; this sector includes unskilled domestic workers as well as highly trained professionals such as doctors and lawyers.

Regions within Minnesota differed markedly in their industrial structure (Chart 2). Several regions of the state, notably its western and southern regions, remain predominantly agricultural regions. Farming in these regions is still an important source of employment, and most of the supply and support industries cater to a farming constituency. There is little industry in most of these farming regions; in some economic development regions fewer than one in ten persons was employed in manufacturing activity in 1972. Some regions of the state still tended to specialize in one economic activity, but the degree of specialization was becoming less pronounced. Mining in 1972 still accounted for more than 10 percent of the jobs in the Arrowhead region of northeast Minnesota, but that share has been declining in recent years. The Second Economic Development Region, in north-central Minnesota, relied more heavily on lumbering and the manufacture of wood products than did the other districts, but even so, only one in twenty workers in this region was employed in the lumbering industry.

More than half the state's work force is employed in the Metropolitan Region, which consists of the area in and around the Twin Cities (Chart 3). Agriculture, so important in outstate Minnesota, provides less than 1 percent of the employment in the Metropolitan Region, but nearly two-thirds of the state's manufacturing activity is located there. The region also serves as the Upper Midwest's trade and finance center. Two-thirds of Minnesota's wholesale trade was centered in the Metropolitan Region, as was nearly three-fourths of the employment in the finance, insurance, and real-estate sectors.

### Trends and Projections

What trends have characterized the past development of the economy? Can these trends be expected to continue into the future? What will be the implications of future trends for different regions in Minnesota?

Some trends, such as changes in employment and income and quantifiable. Other important changes, such as changes in the economy's institutional underpinnings, are less quantifiable, and when this is the case, our observations and projections tend to be more impressionistic. Nonetheless, institutional changes are just as real as changes in employment, and they cannot be ignored. The employment projections made in the following pages are just that--projections, not forecasts.<sup>1</sup> They project what the 1985 economy will look like if the trends of the past continue unabated into the next decade. It is thus assumed that neither energy shortages nor environmental constraints will disrupt the normal course of affairs. Wars, droughts, dollar devaluations, and other random events are not considered in the analysis, and the occurrence of such events would likely nullify our projections.

If present trends continue we are likely to see a continuing decline in the importance of Minnesota's primary industries--agriculture and mining (Chart 4). Together these two sectors of the economy accounted for only 8.4 percent of the state's total employment in 1972, and that figure may drop to about 4.0 percent in 1985. However, both industries are perhaps more important to the state's economy than figures on employment indicate.

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<sup>1</sup>Migration is not expected to either significantly increase or decrease the rate of growth of the state's labor force. No explicit assumptions have been made regarding participation rates in the labor force. Implicitly, however, the trend line projections reflect the recent changes in the age-sex composition of the labor force.

The projections were obtained using least-square statistical techniques. Ad hoc adjustments were made in the statistical projections whenever it was deemed that the projections obtained were inconsistent. Throughout, the unemployment rate was assumed to be 3.9 percent of the civilian work force.

## Agriculture

The rural to urban migration of the past quarter-century has been one of history's most massive population movements and has greatly altered the structure of the Minnesota economy. As late as 1950, nearly 1 of every 4 Minnesotans worked in agriculture; by 1972 that ratio had fallen to fewer than 1 in 12. If past trends continue to 1985, fewer than one in every 25 workers in the state will be employed in farming, an annual rate of decline of 4.2 percent. However, because of 1973 one must question whether long-run trends will in fact continue into the future.

The key at this juncture appears to be foreign demand. In many ways the world of the 1970's has become one interrelated market, and nowhere has this interrelatedness been more dramatically revealed than in farming in 1973. Historically foreign demand has taken only a small share of our farm output. Through the 1960's we literally gave grain away. But by 1973 export sales had nearly tripled over 1970. The Russian grain deal of 1972 set off an explosive rise in wheat prices. The failure of the anchovy catch off the coast of Peru spurred a sharp upsurge in soybean prices. Two devaluations of the dollar gave further impetus to rising foreign demand. The world market has indeed come to our doorstep, and the farm sector's future prosperity seems heavily dependent on the future strength of foreign demand.

The out-migration from farming in the past two or three decades has not been merely a problem of lagging demand, and factors other than foreign demand will help determine whether farm numbers continue to decline. First, it seems likely that long-run trends in productivity will continue into the years ahead; these changes have been highly labor-saving in the past. Since the smallest 51 percent of the state's farms accounted for only 13 percent of total sales in 1969, it appears that there is still room for the consolidation of commercial farming operations.

Second, in the past the prices of purchased inputs such as fertilizer and petroleum products have been low relative to wages and this has encouraged the rapid adoption of capital-intensive, energy-intensive farming techniques. Of course the long-run trend has been dramatically reversed by the energy crisis, and this may slow the rate of decline in farm numbers.

Third, it seems likely that a continuing specialization of economic activities will further circumscribe the farmer's domain as activities formerly performed on the farm will be performed at the next stage in the production process. Moreover, for at least some products, the farms of the future may bear little resemblance to our conventional notion of what a farm is--this is already true of the broiler industry and the large feedlot operations, both of which are structured more like factories than like farms.

The future of the sector is thus clouded with uncertainties. Future trends in export demand is especially uncertain. Mounting world

population pressures may serve to sustain exports at high levels in future years, but there is also the haunting possibility that 1973 was a one-shot affair and that we may be headed back into a world of burdensome surpluses and low farm prices. Regarding farm numbers, perhaps the best guess is that the decline in farm employment will continue because of the pervasiveness of labor-saving technological advances, but that the rate of decline may not be as great as in the past.

### Mining

Like agriculture, mining has often been cited as a declining industry. But unlike agriculture the mining industry is highly localized, and the regional concentration of the state's mining activity in the iron ore areas of northeastern Minnesota has translated directly into high rates of unemployment in that area.

Several problems have plagued the industry. The depletion of higher grade ores has raised the industry's cost structure and encouraged the switch to alternative metals. Advancing technology in the metal-using industries has reduced the metal per unit of output, thereby tending to reduce the demand for iron. Within the mining sector, rapid productivity gains per worker--4.2 percent annually for the nation--have reduced labor requirements and resulted in layoffs. Surface mining, which is amenable to the use of capital-intensive techniques, has largely replaced underground mining. Secondary impacts have compounded the problem of declining employment in the mining regions. The transport sector of the mining region has been especially hard hit by the decline.

Projecting current trends to 1985 indicates that employment in mining will fall to 10,000 persons, less than 1/2 of 1 percent of the state's work force. However, the future of the industry may be almost as uncertain as that of agriculture. Domestic price controls and soaring world prices have boosted export demand, but the nation is still a net importer of many key resources, and in a resources-short world of the future, we may find ourselves facing cartel arrangements patterned after the Arab oil embargo--the bauxite-producing nations are already exploring this possibility. If that should happen, the resulting higher prices, together with continuing technological advances, might make the extraction of lower-grade ores economically feasible. There is some room for expansion of the mining industry in Minnesota; however any employment increases will probably be fairly modest, at best.

### Manufacturing

Minnesota has been blessed in recent years with an industrial base of rapidly growing industries such as computers and electronics, and consequently, manufacturing activity in the state has grown more rapidly than in the nation. If this trend continues to 1985, roughly the same proportion of the state's work force will be in manufacturing as at the national level. In both the state and the nation about one-fourth of the jobs will be in the secondary industries--manufacturing and construction.

This convergence in manufacturing shares has happened fairly rapidly, for as late as 1955 there were marked differences in industrial structure. In that year a fifth of the state's work force was still employed in the primary industries, compared to only 11 percent at the national level. Nationwide, manufacturing and construction activity provided 31.7 percent of all employment; in Minnesota 20.1 percent of the workers were employed in these secondary industries.

However, Minnesota's pattern of development is by no means unusual. Economies which are in the early stages of development typically depend heavily on primary industries such as mining, forestry, and agriculture for their employment base. As a region's economy develops, manufacturing comes to play a dominant role, with its share of employment typically rising to more than 25 percent before leveling off or perhaps even declining as the services sector gains in importance.

Total manufacturing employment in Minnesota grew at the annual rate of 2.5 percent over the 1960-72 period. By 1972 Minnesota's manufacturing employment totaled 307.5 thousand workers, or 19.3 percent of the state's total employment. Durables grew faster than nondurables--3.6 percent versus 1.3 percent, respectively.

Within the durable goods sector employment growth was most rapid in the metal-fabricating and machinery manufacturing sectors. Much of this expansion was in the rapidly-growing industries such as computer electronics. Manufacturing employment in the wood and lumber products industries declined.

The slow rate of growth in nondurables was due largely to declining employment in the food and kindred products industries, which make up about one-third of the state's total employment in nondurables. Publishing and printing was also a slow-growth industry over the decade of the 1960's. The production of chemicals, on the other hand, expanded rapidly, but still accounted for only 2 1/2 percent of manufacturing employment by 1970.

The projected growth rate in total manufacturing employment to 1985 is 2.6 percent. Durables are expected to continue growing more rapidly than nondurables--the anticipated rate of growth being 3.8 percent. The rate of growth in nondurables is expected to be only .7 percent per year.

As in the other sectors there are factors which complicate any future projections--the main one here would seem to be the energy crisis. The state is an importer of energy, and its harsh climate makes it a relatively energy-intensive region. The question must be raised: Will the high cost of energy put the state at a comparative disadvantage relative to other regions? Evaluating the impact of high cost energy is no easy task. True, we do import most of our energy, but except for coal, the costs of transporting energy are not very great. The overall energy-intensity of our industrial structure does not appear to be very

great even though some specific industries such as food processing are highly energy intensive. One thing does seem certain--the cost of enjoying Minnesota's good life is going to be greater in the future, and because of this, it may take a higher wage structure to attract and hold labor inputs in this area. On balance the state may suffer a disadvantage relative to other regions, but we do not know how serious this disadvantage will be.

### Tertiary Industries

Among the trade, transportation, and other support industries, the developments in the transportation sector may be the most significant. Americans have long enjoyed the luxury of a highly personalized transportation system but may now be moving toward a greater reliance on public transit facilities. Environmentalists argue that the high social costs of our system--pollution, noise, urban sprawl, etc.--vastly outweigh the private benefits. In addition to the high social costs, the private costs of transportation have soared in the past year, and this provides an incentive for the expansion of public facilities. Future developments in transportation will depend a choice we make as a society: Do we want to expand our public facilities or continue to rely primarily on the automobile?

The figures on transportation employment in Table I and II include only the employment in the private sector. The sector provided 3.6 percent of the state's total employment in 1972, but over the 1960-72 period, employment was slowly declining. Most of the decline was in the railroad industry; employment in trucking and other industries increased at a modest pace. However, there is talk of a revival of rail travel in the future, and the possible development of western coal reserves also enhances the future of railroads.

Another support industry, the wholesale and retail trades, provided more jobs for Minnesotans in 1972 than any other sector; combined retail and wholesale employment totaled 332,000 persons. The retail trades comprised one of the fastest growing sectors of the economy over the past decade, having averaged 3.2 percent per year. The projected rates of growth to 1985 are 2.7 percent in the retail trades and 1.4 percent in the wholesale trades. Both rates are slightly lower than past trends, and this is consistent with the view that the economy will slow down in the late 1970's because of declining rates of population growth.

A third important tertiary industry is the services sector. The services sector has often been considered a growth area of the economy. But this is not true of all service industries. The demand for professional services has been growing rapidly, but an offsetting factor has been the declining employment in household services and the fall in the number of self-employed persons. Another offsetting factor has been the consolidation and reorganization within the services sector as the functions performed by small businesses have been taken over by larger organizations. The demand for several types of services should

continue growing in the next few years for several reasons: First, the anticipated growth in Minnesota population will continue to expand the demand for personal services. Second, the expected increase in Minnesota business activity will enhance the demand for business services. Third, given that leisure time will continue to expand, consumers will have more time to devote to service-oriented recreation and entertainment. This factor is especially important to Minnesota with its outdoor recreational amenities—fishing, hunting, skiing, boating, snowmobiling, etc. Fourth, per capita incomes are expected to increase around 50 percent between 1972 and 1985, and expenditures on services are highly responsive to changes in per capita income.

### Government in the Economy

The scope of the public sector will broaden in coming years; employment in government will increase rapidly.

There are two economic reasons to expect an expansion of the government's role. First, there will probably be an expansion in the output of "public goods" in the coming years. Public goods are those goods which individuals cannot afford, but which communities can; these goods are therefore most efficiently provided through the public sector. Examples are parks, schools, theatres, policy services, and fire protection.

Some economists have argued that in the past there has been an overallocation of our resources to private goods at the expense of public goods. Other economists disagree. At any rate it seems apparent that expenditures on many existing public services will be increasing as attempts are made to update or improve those services.

But beyond the increase in existing services, the scope of government is broadening as areas which were formerly considered to be the responsibility of the individual or family are being taken over by government. Health care is one example; health services were once considered to be private goods, but more and more they are being viewed as a public good.

A second reason for the expanding role of government is the increased need to regular private economic activity. The economic system has become highly complex and interrelated. Increasingly the actions taken by one individual or firm result in external costs for other individuals or firms, and government regulation, it is argued, serves to more properly allocate these external costs. In environmental areas, especially, the pervasiveness of external costs will likely create a need for more government.

Employment in government in Minnesota increased from 133,100 to 246,000 in the 1957-72 period. Much of the growth was in the educational area as more teachers were needed because of the burgeoning school age population. Employment growth in education in the 1970's will almost certainly not keep pace with the rate of growth of the 1960's.

Projecting recent trends to 1985 means that employment in the government sector will rise to 380,000 in that year. The annual rate of growth is projected to be 3.4 percent, which is less rapid than the 4.2 percent growth rate of the 1960's.

Employment at the state and local level is expected to continue expanding more rapidly than federal employment. For while the federal government's comparative advantage appears to lie in the collection of revenue and in the formulation of general guidelines, the actual delivery of services is perhaps accomplished most efficiently at the local level, primarily because local officials are more likely to be aware of specific regional needs.

### The Regional Location of Economic Activity

In the future there is likely to be a further clustering of industrial activity in the Twin Cities or in other scattered growth centers around the state.

Again this reflects merely a continuation of current trends. Most new industry has concentrated in a few areas. In particular there has been a clustering of industry in and around the Metropolitan Region. According to the 1970 census, better than 85 percent of the state's manufacturing activity was located in the Metropolitan Region and the three regions which surround it. About 85 percent of the metal-working industries were in these regions, as were nearly 95 percent of the state's nonelectrical machinery manufacturing, about 80 percent of its food and kindred products industries, and nearly all of its electrical machinery industry.

There are compelling reasons to suppose that industry will continue to locate in only a few areas of the state. In determining location, firms must consider the location of their inputs and the location of their markets. Much manufacturing output is sold either as inputs to other manufacturing firms or to final markets; in either case the firm would be encouraged to locate near existing industrial or population centers. Likewise, on the input side firms seek to locate near existing labor markets or near their suppliers; this again encourages the clustering effect.

The only industry in which there has been a major dispersion about the state is the food and kindred products industry. Because of improved refrigeration technologies, firms can now locate nearer the source of raw materials in rural areas. There has thus been a gain in employment in the outstate areas and a decline in employment in the Twin Cities. Even here, however, the industries have tended to relocate in regions that are adjacent to the Twin Cities, thereby forming a secondary manufacturing belt around the central market.

This does not argue, of course, that it is a desirable policy for firms to cluster in a few central locations. Indeed there are a

number of programs which encourage firms to locate in rural areas, but one senses that these programs have not been highly successful thus far.

How will the energy crisis affect the regional distribution of economic activity? One argument is that rising transportation costs will accelerate the regional clustering of economic activity. Small towns which are dependent on energy-intensive industries may be hard hit by rising energy costs. Future investments are likely to be more labor intensive since labor is the main substitute for energy inputs, and this might also result in the further clustering of economic activity near existing population centers.

### The Economic Environment in 1985

Economic change in Minnesota in the next decade will encompass more than shifts in employment and gains in per capita income. Some established institutions will be replaced by emerging institutions which are more capable of dealing with existing social needs. Values, beliefs, and mores are in flux, and evolutionary change is taking place in the economy's legal foundations. Such changes permeate the entire social structure; only a few will be noted here.

First, serious questions are being raised about the meaning and purpose of economic growth. How much growth do we want? What sectors or regions should be growing? How can we minimize the undesirable impacts of economic growth? The manner in which these issues are resolved will determine the patterns of economic development over the coming decades. Since most people would agree that willy-nilly, undirected growth is not in our best long-run interests, there is an apparent need for the coordination and planning of future growth, and new institutions may emerge to fill that need. To some extent existing government units such as the Economic Development Regions and the Metropolitan Council may take on the coordination of regional development. In addition, there is perhaps room for a closer alliance between business and government in planning future economic growth.

A second fundamental change is that property rights are being redefined. Traditionally the ownership of property carried with it the right to use the property as one desired. However, in the future the rights of owners may be increasingly restricted because of a greater concern for the welfare of the community. Environmental constraints on private firms are one example. Another is the growing need for zoning and land-use regulation.

Third, attitudes toward work and leisure are changing dramatically, and economic institutions will need to become more flexible in order to accommodate these changing attitudes. Whereas workers once sought job security, many younger workers seek flexibility and express a fear of being locked into a position. They are also seeking greater satisfaction from their work and are demanding more of an input into decision-making

processes. Leisure time is likely to continue increasing, and the ways in which workers spend their leisure will influence the types of goods and services which are produced 10 years from now.

Fourth, there will be subtle shifts in the locus of decision-making power in coming years in both the private and public sectors. Some activities formerly performed in the private sector will be shifted into the public sector. On the other hand, the desire of local groups for community control and more self-determination may result in more of a citizen input into the administration of existing programs. In some cases power may become more decentralized as when local officials administer federal programs; in other cases, the failure of local governments to deal effectively with social problems may lead to a centralization of authority in Washington.

Fifth, despite a couple of false starts, the concept of the negative income tax is still very much alive. The tax would put a floor under the income level of every American. The proposal has much appeal with those who would like to streamline the nation's patchwork welfare system, and there is a chance that some type of program will be enacted in the next few years.

Sixth, there is the omnipresent energy crisis. For many people the attractiveness of living in Minnesota lies in being able to enjoy its amenities--its fishing, boating, and camping activities in the summer and its skiing and snowmobiling activities in the winter. From now on the cost of enjoying amenities will be increasing, and this may affect the future growth of the labor force, as well as altering the lifestyles of Minnesotans.

Finally, though its impact on our daily lives is not fully understood, we cannot ignore the trend toward bigness in government, education and business. We are, as Peter Drucker writes, a society consisting of gigantic institutions. The trend toward bigness is eclipsing the small businessman, the independent professional, the craftsman, and the small farmer, and it seems fair to say that this trend will probably continue through the next decade.

Such changes mean that the 1985 economy will be different--perhaps radically different--from today's economy. Undoubtedly new problems will arise as we adjust to rapid technological and social change. Of the challenges now facing us, perhaps the greatest one is to find ways of coping with rapid change in the context of a decentralized economic system. Coordination is needed but the term economic planning has typically been anathema to many Americans--it conjures up images of politburos and stifling bureaucracies. We have taken pride in our flexibility and in our ability to "muddle through." Nonetheless, there appears to be a growing need in our society for direction and purpose; where that direction will come from is not yet clear.

#### Some Special Qualifications

Several factors which might produce significant deviations in our employment projections should be noted.

### Demographics

The principle demographic issues involve population size and labor force participation rates. The trend projections make no explicit allowance for the postwar baby boom "bubble" moving through the labor force. This is causing the rate of growth in the labor force to accelerate up to about 1980, but from 1980 to 1985 the growth rate falls sharply as the "bubble" of children is absorbed into the labor force. The recent sharp declines in birth rates will then lead to slower growth in both the labor force and total population. These factors have been explicitly introduced into the U.S. projections but not the Minnesota trend projections of Table II.

Errors in projections of birth rates to 1985, of course, will have little impact on the labor force projections since the 1985 labor force is already born. However, family size could affect participation rates, particularly females, and thereby affect the 1985 labor force. This kind of error in the projections would likely be small, but a potential tax law change could have more significant implications for the 1985 labor force. This would be to allow "day care" kinds of expenses as "business expenses" for tax purposes without any limit on income eligibility.

### Tastes

A significant shift in consumer tastes for "leisure" could affect the average hours per employee (currently declining at about 0.5 percent per year), and thereby affect the rate of growth in total output. Changes in tastes for "leisure products" could also affect the industrial composition, but need not have a significant affect on total output.

### Economic Policy

A variety of policy issues could have a significant impact on the Minnesota economic environment in 1985 with regard to both magnitude and dispersion.

First, relaxing the 4 percent unemployment rate as a definition of full employment could affect the growth rate in total output and the level of employment in 1985. Adoption of an income maintenance program might provide some political stimulus for thinking along these lines. Near term rates of inflation could also have a bearing on this issue.

Second, there appears to be an increasing concern among legislators for the "middle income" persons. Exactly how this concern might manifest itself in action is not clear, but there does seem to be action of this sort in the housing area. For example, if rehabilitation loans are "subsidized," there could be significant effects on the rate of decay of older neighborhoods. This would have further implications for the way that urban areas develop, e.g., old neighborhoods might not be displaced by high-rise development as extensively as in the recent past.

Finally, legislation such as that which provides for "Economic Development Districts" might induce a closer alliance between business and government, and might also have significant implications for the way that urban centers develop in the future.

Table I

Distribution of Employment by Industry:  
U.S. and Minnesota (in percent)

	<u>Minnesota</u> <sup>1/</sup>		<u>U.S.</u> <sup>2/</sup>	
	1972	Change by 1985	1972	Change by 1985
<b>Total Employment</b>	100.0%	0	100.0%	0
<b>Government</b>	15.4	+3.8	15.5	+2.0
<b>Total Private</b>	84.6	-3.8	84.5	-2.0
<b>Agriculture</b>	7.6	-4.1	4.0	-2.2
<b>Nonagriculture</b>	76.9	+0.4	80.4	+0.4
<b>Mining</b>	0.8	-0.3	0.8	-0.2
<b>Construction</b>	3.8	-0.3	5.1	-0.3
<b>Manufacturing</b>	19.3	+2.4	22.5	-0.7
Durable	10.7	+3.4	13.0	+0.2
Nondurable	8.6	-1.0	9.6	-0.9
<b>Transportation, Com-             munications, and             Public Utilities</b>	5.4	-1.4	5.5	-0.5
Transportation	3.6	-1.1	3.3	-0.3
Communications & Public Utilities	1.9	-0.4	2.2	-0.2
<b>Trade</b>	20.9	+0.8	21.5	-0.7
Wholesale	5.2	-0.1	4.9	-0.1
Retail	15.6	+1.1	16.6	-0.6
<b>Finance, Insurance             and Real Estate</b>	4.2	+0.3	5.0	+0.5
<b>Services</b>	22.5	-1.3	20.0	+2.2

<sup>1/</sup>Minnesota projections are taken from Table II.

<sup>2/</sup>U.S. data and projections are from Table 9 in: Ronald E. Kutscher, "The United States Economy in 1985 Projections of GNP, Income, Outlook, and Employment" Monthly Labor Review (December 1973), pp. 27-42.

Table II

## Minnesota Employment Projections to 1985

	Actual (thousands) 1972	Projected <sup>1/</sup> 1985	Annual Growth <sup>2/</sup> Rate
Civilian Work Force	1690.5	2060	1.5
Total Employment	1593.1	1980	1.7
Government	246.0	380	3.4
Total Private	1347.1	1600	1.3
Agriculture	121.6	70	-4.2
Nonagriculture	1225.5	1530	1.7
Mining	13.0	10	-2.0
Construction	60.0	70	1.2
Manufacturing	307.5	430	2.6
Durable	170.9	280	3.9
Nondurable	136.7	150	0.7
Transportation, Com- munications, and Public Utilities	86.6	80	-0.6
Transportation	56.7	50	-1.0
Communications and Public Utilities	29.9	30	0.0
Trade	332.3	430	2.0
Wholesale	83.2	100	1.4
Retail	249.1	330	2.2
Finance, Insurance and Real Estate	67.2	90	2.3
Services	358.9	420	1.2

<sup>1/</sup> These projections are based on least-squares estimates of trend rates of growth with subjective adjustments to insure consistency.

<sup>2/</sup> Annual rate of growth, compounded annually, between 1972 and 1985.

DEVELOPMENT REGIONS

MINNESOTA

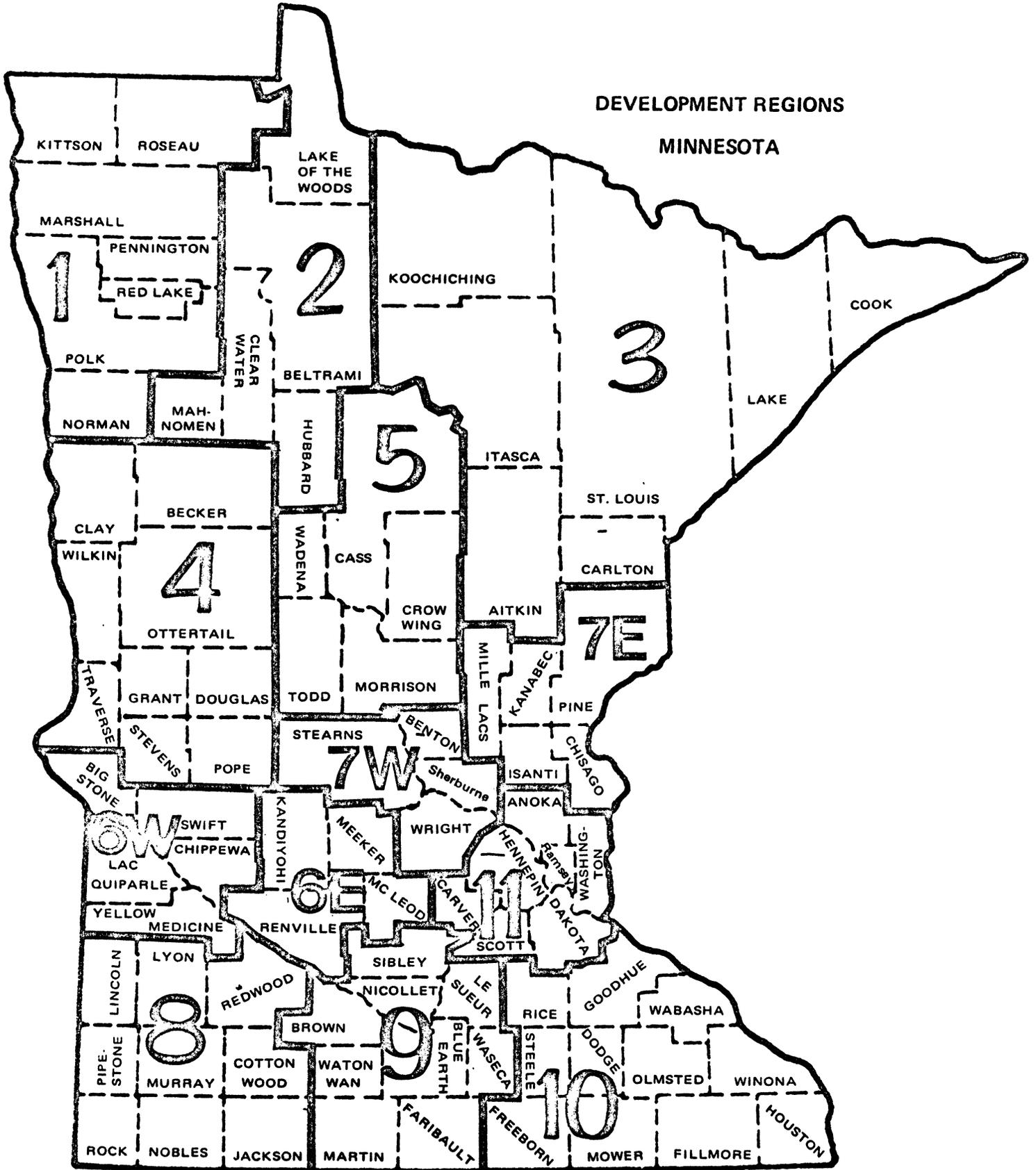
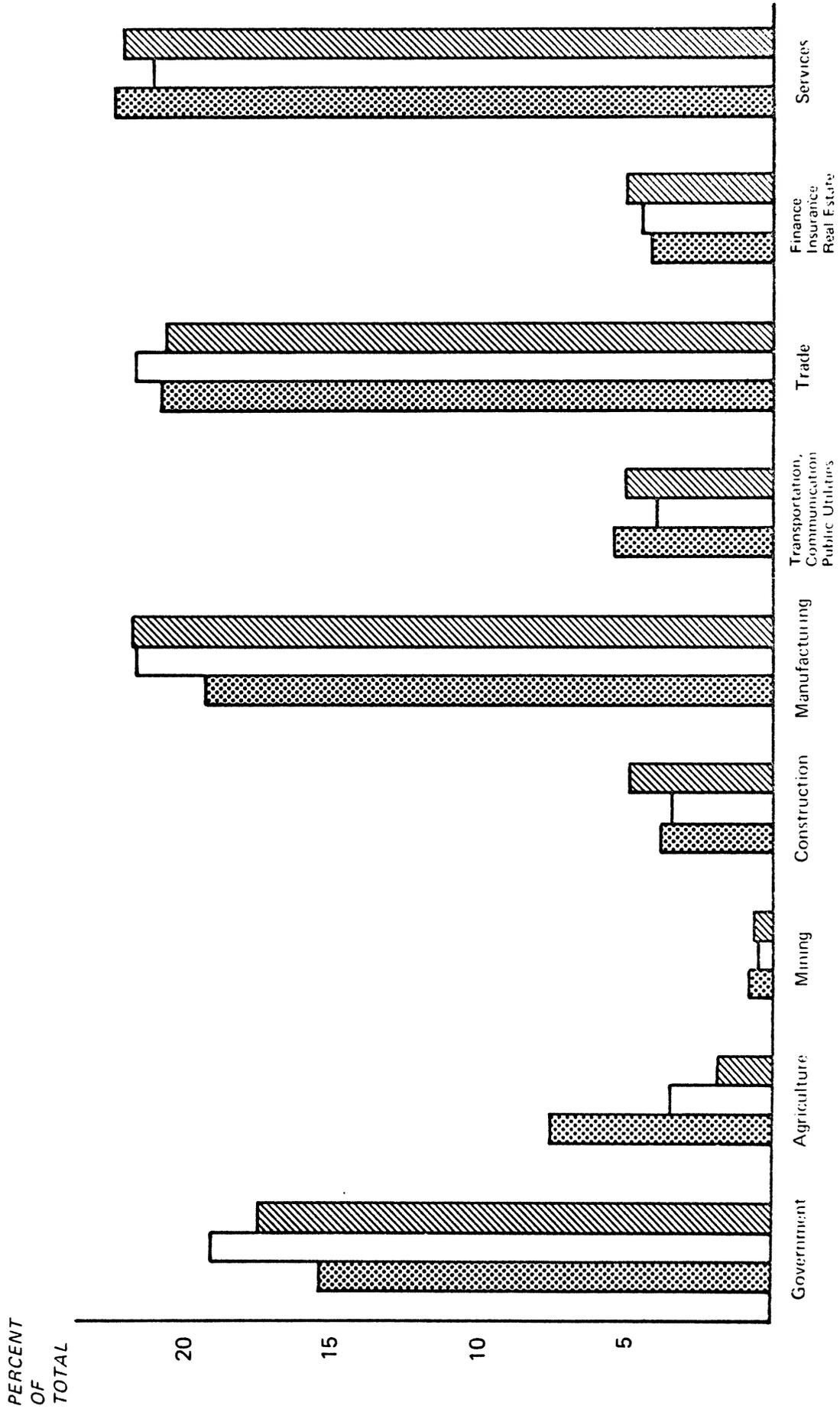


Chart 1

DISTRIBUTION OF EMPLOYMENT BY INDUSTRY

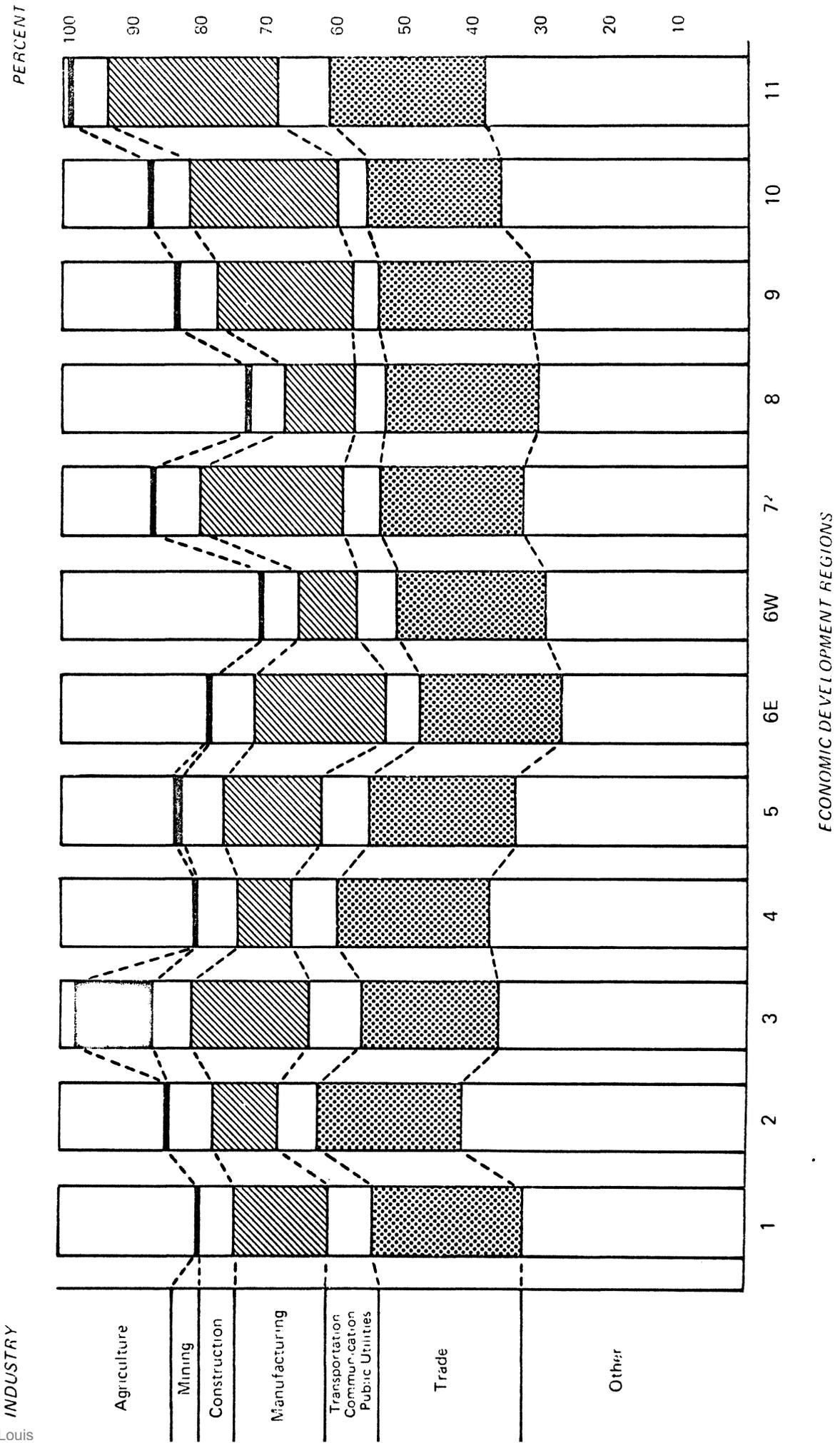
Minnesota (1972)
  Minnesota (1985)
  U.S. (1985)



Source: • Table I

Chart 2  
 DISTRIBUTION OF EMPLOYMENT  
 BY INDUSTRY IN ECONOMIC DEVELOPMENT REGIONS

1970



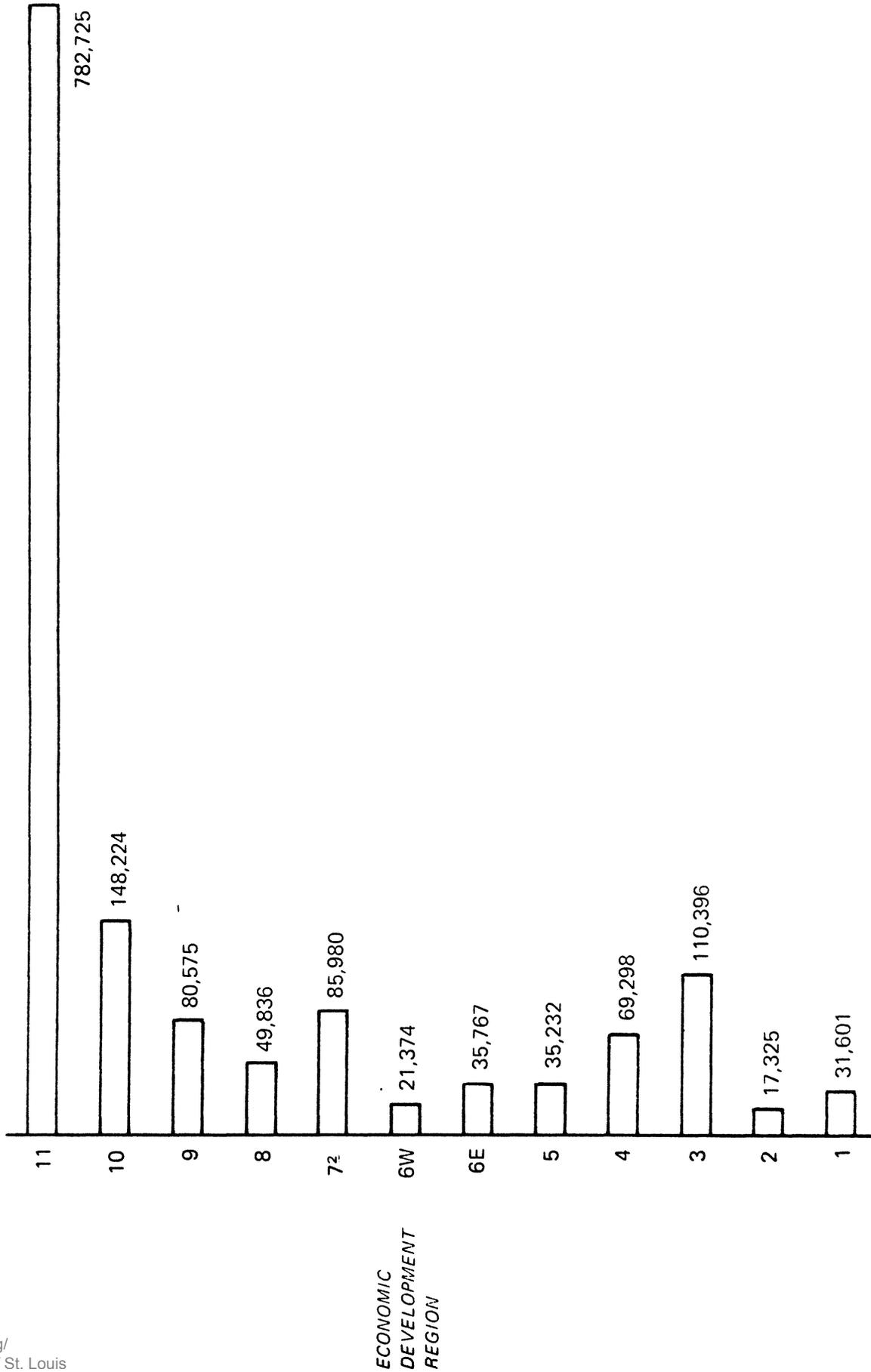
1 Source: 1970 Census of Population

2 Data for Regions 7E and 7W has not been disaggregated

Chart 3

MINNESOTA EMPLOYMENT BY ECONOMIC DEVELOPMENT REGION

1970

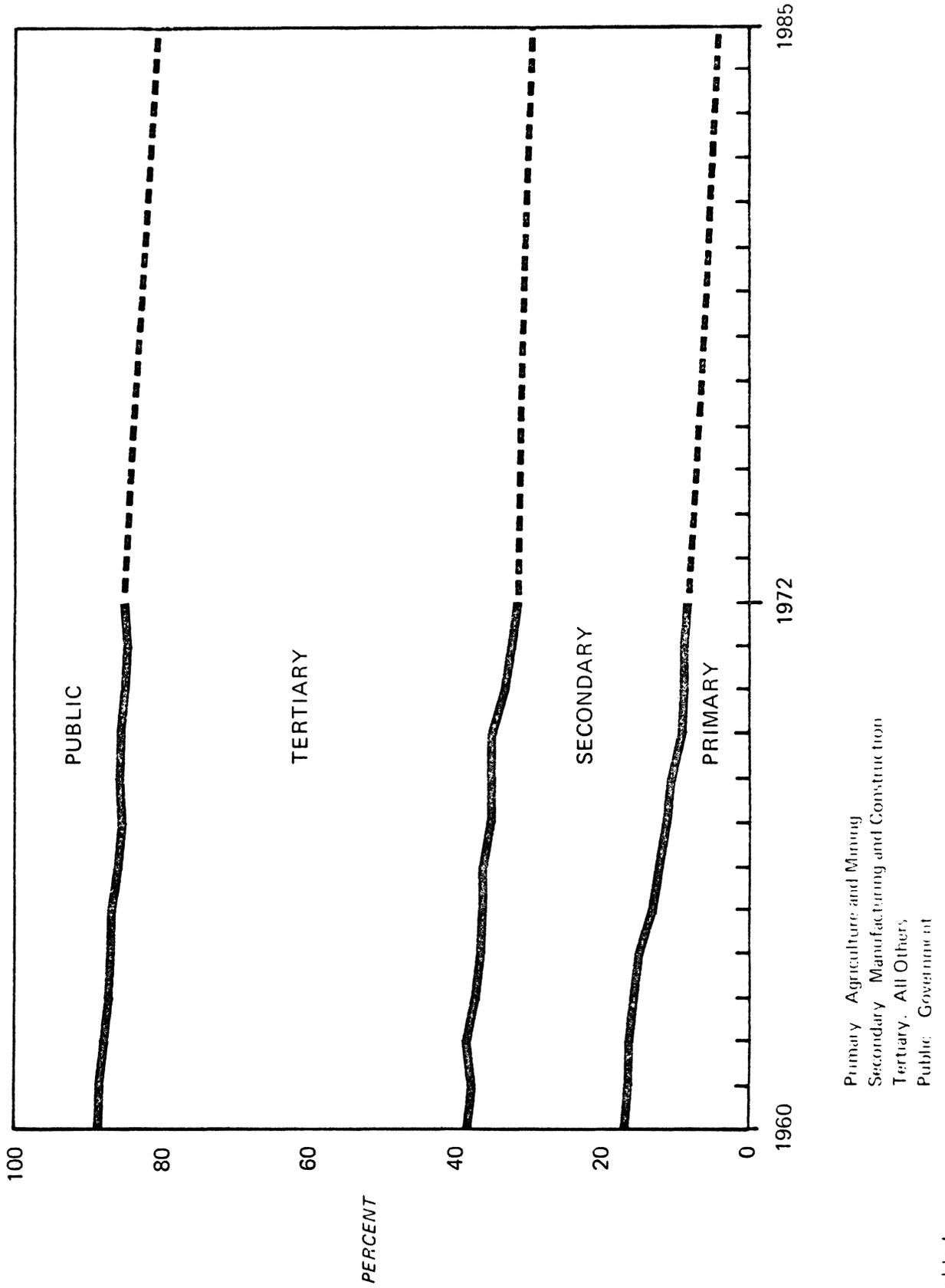


1 Source: 1970 Census of Population

2/ Data for Regions 7E and 7W has not been disaggregated

Chart 4

MINNESOTA EMPLOYMENT SHARES BY BROAD AGGREGATE



Source: Table I