



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

MINNESOTA farm business NOTES



NO. 441

ST. PAUL CAMPUS, UNIVERSITY OF MINNESOTA

MAY 1962

The Growth And Development Of Rural Minnesota

J. L. App, D. C. Dahl, K. H. Thomas, and W. B. Sundquist¹

Important changes took place in Minnesota's economy during the 1950's. This was evidenced by labor moving out of such basic resource industries as agriculture and forestry and by employment increases in manufacturing and trade.

Thus, a shift occurred from rural to metropolitan living for large segments of Minnesota's population. For many who remained in rural Minnesota, changes brought problems of economic survival and growth. These have become increasingly important to every Minnesota citizen.

This issue of *Minnesota Farm Business Notes* is devoted to a presentation and analysis of economic trends in Minnesota, particularly nonmetropolitan areas. Also included are brief discussions of available resources and the

future outlook for different sections of the state.

Recognition of current economic trends and planning for the future are necessary steps to the full realization of the state's growth potential.

* * *

A CHANGING MINNESOTA

Since 1900 Minnesota's economy shifted from a basic agricultural orientation to one closely resembling the total U.S. economy in industrial composition. This longrun trend was accelerated by changes occurring from 1950 to 1960.

Population and Employment Changes

Total population in Minnesota increased by nearly 15 percent during the 1950's, from slightly less than 3 million to over 3.4 million people. But, this increase was not spread uniformly throughout the state.

The proportion of Minnesota's population living in urban areas (cities of 2,500 or more people) increased about 31 percent from 1950 to 1960. The remaining rural areas of the state decreased nearly 5 percent in population during the same period. As a result, two out of every three Minnesotans were urban residents in 1960. This shift from rural to urban living can be largely explained by changing employment and personal income opportunities.

The total labor force in Minnesota (those actively seeking work) increased by 100,000 persons between 1950 and 1960. During this time, unemployment decreased from 78,000 to 76,-

000 persons. Therefore, total employment in 1960 was about 1.33 million (table 1).

The most striking decrease in employment during the 1950's was in agriculture. The combined drop of both hired and family labor totaled nearly 100,000 persons. Agriculture supplied almost 30 percent of the state's jobs in 1950 but only 20 percent in 1960.

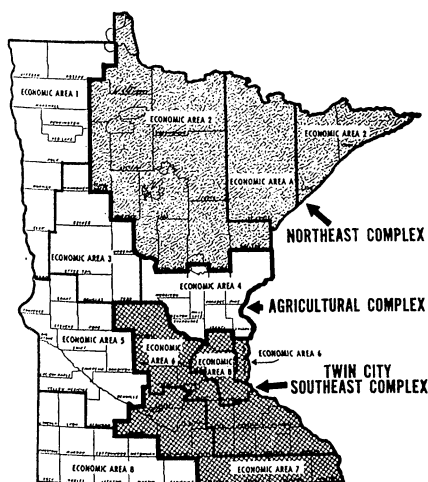
Other industries that relatively declined in employment were mining, forestry, and fishing. These industries, along with farming, are often referred to as the "resource or primary" industries. Transportation, closely related to resource industries, also declined in employment.

In the nonresource section all categories except transportation had modest to sizable gains in employment and total personal income during the 1950's. Nonfarm proprietors; finance, insurance, and real estate; services, and government categories gained most. The nonresource industries now provide 79 percent of the state's employment and 71 percent of the total personal income.

Economic Interdependency

Income and employment declines in the resource industries were largely offset by increases in related nonresource industries. This is due to an interdependency between industries in the state. For example, it is estimated that one-third of the nonagricultural industry in Minnesota is of the "agribusiness" type.

Many changes in agriculture benefited the state as a whole. Expenditures for production items used in farming increased considerably in recent years. Production from Minnesota agriculture also increased greatly. These increases meant new jobs in agribusiness.



Economic areas and complexes of Minnesota.

¹ J. L. App, K. H. Thomas, and D. C. Dahl, University of Minnesota and W. B. Sundquist, Farm Economics Division, ERS, USDA.

Table 1. Minnesota personal income and employment by industrial sources, 1950 and 1960

Industrial sources of personal income and employment	Personal income		Employment	
	1960	1950 to 1960	1960	1950 to 1960
	million dollars	percent change	thousand workers	percent change
Resource industries	641	2	283	-26
Agriculture	529	-7	266	-27
Proprietors	469	-6	228	-26
Hired labor	60	-14	38	-30
Mining	112	100	17	6
Nonresource industries	4,962	80	1,047	22
Contract construction	306	111	55	22
Manufacturing	1,210	89	230	14
Wholesale, retail trade	921	64	238	17
Finance, insurance, real estate	221	115	48	41
Transportation	337	45	59	-12
Comm., public utilities	138	100	25	14
Services	441	45	138	38
Government	682	122	150	29
Other industries	10	67	1	.....
Nonfarm proprietors	696	50	103	43
Other sources of personal income*	1,433	80	.....	.....
Totals	7,036	68	1,330	7

* Includes other labor income, property income, and transfer payments, less personal contribution for social insurance.

Sources: *Personal Income By States Since 1929* (supplement to *Survey of Current Business*, 1956, pp. 168-9); *Survey of Current Business* (41 [8]: 14-15, August 1961); special employment estimates from Minnesota Department of Employment Security.

Table 2. Employment by industries, 1960, Twin City-Southeast Complex

Economic areas	Agriculture		Manufacturing		Fisheries, forestry, mining		Other		Total	
	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state
B	6	4	145	59	.....*	2	407	51	559	45
6	37	21	32	13	.....*	1	102	13	171	14
7	26	14	18	7	.....*	2	51	7	96	8
Total	69	39	195	79	1	5	560	71	826	67

* Less than 500 workers.

Source: 1960 *United States Census of Population: Minnesota, General Social and Economic Characteristics*. Percentages are computed from unrounded figures.

Improvements in farming efficiency resulted in the release of labor to the nonfarm sector. Therefore, many Minnesotans became employed in the production of other goods wanted by the American consumer. Minnesota is largely an export state. Thus, the ability to adjust its economy to the production of those goods wanted by the national and international market is crucial to its economic future.

One type of economic interdependency decreased. Small towns once provided many production and consumption items used by farmers. Farmers now bypass small nearby towns and make their purchases in larger trading centers. This change has a significant impact on incomes and employment in small towns. Maintenance

of their schools, churches, and service industries is increasingly difficult. These are important local activities that require an adequate population base in order to grow.

MINNESOTA'S ECONOMIC BASE

Minnesota shows a high degree of economic specialization when viewed geographically. Also, changes occurred and are occurring at different rates in different parts of the state. In order to focus on geographical differences in resource bases and changes in economic activity and population we have grouped economic areas into three **economic complexes** (see the figure).

Twin City-Southeast Complex

The geographic areas included in the Twin City-Southeast Complex and the distribution of employment by industries are shown in table 2.

Percentages in table 2 are of total state employment. This Complex provides about two-thirds of the state's total employment and 79 percent of the state's employment in manufacturing. Other important employment is in agriculture and service industries.

Agricultural Complex

The employment base of the Agricultural Complex is shown in table 3.

This Complex is largely rural. It provided 55 percent of the state's agricultural employment in 1960, 12 percent of the manufacturing jobs, and 18 percent of the jobs in the "other" category of industry.

Northeast Complex

The economic base of the Northeast Complex is illustrated in table 4. It contrasts sharply with the rest of Minnesota. This Complex is characterized by substantial employment in mining, forestry, and tourism. The Complex provided 82 percent of the total state employment in forestry, fisheries, and mining in 1960.

Agriculture in the Complex is widespread, yet limited. Manufacturing is largely localized (80 percent) in a three county area. Employment in manufacturing in the Northeast Complex amounted to only 9 percent of the state total in 1960.

With this employment picture as a measure of the resource base in Minnesota's economic areas and complexes, we can trace and evaluate some changes in economic activity and population from 1950 to 1960.

ECONOMIC GROWTH PATTERNS

Within Minnesota, as elsewhere in the United States, economic growth varied by area. While some areas expanded rapidly, others are now in stages of economic stagnation or decline.

Growth Measures

Economic growth patterns are measured in several ways. However, such measures have the common objective of evaluating the material welfare of individuals and areas. Common measures

of individual and family welfare are those of absolute and relative levels of per capita incomes and their change over time.

On an area basis, however, per capita incomes may not accurately reflect total economic activity. For example, per capita incomes may rise in an area due to outmigration of low income workers. Although per capita incomes of remaining people seem better due to such outmigration, service industries and the tax base for schools might deteriorate.

Increases in per capita income associated with growth in the total economic activity in an area provide a generally preferable growth pattern. Common measures of growth or decline of economic activities on an area basis are changes in population and total personal income. These are used in this analysis. As in the case of per capita income, both the absolute and relative values of these area measures are important indicators of economic growth, stagnation, or decline.

A listing of population, total personal income, and per capita income measures for the 1950's is reported in table 5.

Comparison of Complexes

In volume of economic activity, the Twin City-Southeast Complex dominates the state picture. This complex contains 64 percent of the population and 67 percent of the employment opportunities. Its populace earns 73 percent of the total personal income for Minnesota. It generally had above average increases in population and total personal incomes during the 1950's.

In contrast, the Agricultural Complex accounts for 23 percent of the state's population, 22 percent of the employment opportunities, and only 16 percent of the total personal income. Its population remained about constant

while total personal income showed below average increases over the 1949 to 1959 period.

Similarly, the Northeast Complex contains 13 percent of the population, 11 percent of the employment opportunities, and 11 percent of the total personal income. Population increased

only modestly while total personal income increases approximated the national average.

The difference in absolute per capita income levels for the complexes is an important comparative measure. In 1949 per capita income in the Twin City-Southeast Complex was \$1,117

Table 3. Employment by industries, 1960 Agricultural Complex

Economic areas	Agriculture		Manufacturing		Fisheries, forestry, mining		Other		Total	
	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state
1	17	10	9	4	2	11	23	3	52	4
3	18	10	3	1	.....*	1	24	3	46	4
4	13	7	6	3	.....*	0	22	3	22	2
5	25	14	3	1	.....*	1	34	4	62	5
8	25	14	7	3	.....*	0	36	4	67	6
Total	98	55	28	12	3	13	139	18	268	22

* Less than 500 workers.

Source: 1960 United States Census of Population: Minnesota, General Social and Economic Characteristics. Percentages are computed from unrounded figures.

Table 4. Employment by industries, 1960, Northeast Complex

Economic areas	Agriculture		Manufacturing		Fisheries, forestry, mining		Other		Total	
	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state	Number thousands	Percent of state
2	9	5	12	5	5	27	38	5	64	5
A	1	1	11	4	12	56	52	7	75	6
Total	10	6	23	9	17	82	90	11	139	11

Source: 1960 United States Census of Population: Minnesota, General Social and Economic Characteristics. Percentages are computed from unrounded figures.

Table 5. Changes in population, total personal income, and per capita income for the United States, Minnesota, and economic complexes and areas within Minnesota

	Population			Total personal income			Per capita income		
	1950	1960	Percent change	1949	1959	Percent change	1949	1959	Percent change
	thousands			millions			dollars		
National	151,100	180,000	+19	229,000	402,200	+76	1,512	2,234	+48
Minnesota	2,982	3,414	+15	3,185	6,407	+101	1,067	1,876	+76
Agricultural Complex	792	787	-1	707	1,043	+47	893	1,325	+48
Economic Area 1	150	150	0	130	203	+57	866	1,353	+56
3	143	136	-5	102	148	+45	714	1,088	+52
4	120	124	+4	78	147	+87	655	1,182	+81
5	189	184	-3	211	303	+44	1,115	1,650	+48
8	190	193	+1	186	242	+30	976	1,254	+29
Northeast Complex	407	440	+8	379	676	+78	931	1,535	+65
Economic Area 2	201	209	+4	149	278	+87	741	1,333	+80
A	206	232	+12	230	398	+73	1,117	1,717	+54
Twin City-Southeast Complex	1,783	2,187	+23	2,098	4,688	+123	1,117	2,144	+82
Economic Area B	1,117	1,430	+28	1,504	3,161	+110	1,347	2,211	+64
6	416	483	+16	361	1,116	+209	867	2,310	+166
7	251	274	+9	234	411	+76	934	1,499	+61

Source: United States Census of Population: Minnesota, General Social and Economic Characteristics. Slight differences in these figures and table 1 are due to time and methods of reporting. Total personal income for 1949 was computed by multiplying the midpoint income by the frequency of the income class except for the highest income class where \$25,000 was used as the midpoint. Total personal income for 1959 is the mean income multiplied by total recipients in the county. Per capita income was then computed from total personal income. Data were developed by county and aggregated for area categories.

MINNESOTA

farm business

NOTES

Prepared by the Department of Agricultural Economics and Agricultural Extension Service.

Published by the University of Minnesota Agricultural Extension Service, Institute of Agriculture, St. Paul 1, Minnesota.

compared to \$931 for the Northeast Complex and \$893 for the Agricultural Complex.

In 1959 per capita income levels were \$2,144 in the Twin City-Southeast Complex, 82 percent more than in 1949. The other complexes also had increases in per capita income, but these were substantially less. Per capita income in the Northeast Complex rose by 65 percent to \$1,535. The Agricultural Complex increased 48 percent to \$1,325. As these data show, gaps in absolute per capita incomes between the complexes widened substantially during the 10 years.

Comparison of Economic Areas

In terms of economic areas, Area 6 (Twin City-Southeast Complex) had the highest per capita income (\$2,310) in 1959. This was more than double the per capita income (\$1,088—the lowest in the state) of Area 3 (Agricultural Complex) located in West Central Minnesota. However, in 1949 Areas B and 4 had the highest and lowest per capita incomes, respectively. This indicates the different rates of growth in per capita incomes in various areas.

Predominately agricultural economic areas generally lagged substantially behind predominately urban or suburban economic areas. This is the case even when allowing for lower living expenses typical of more rural areas. This lag in per capita income occurred despite a net reduction of population in three of the six economic areas in the Agricultural Complex.

Comparison to National Growth

In analyzing relative growth of various economic areas and complexes in Minnesota, the data in table 5 can be used to compare their progress with that of the nation. The four following classifications are combinations of increases or decreases in population, total personal income, and per capita income for the geographic areas in Minnesota compared with the U. S. average.

1. Above average increases in population, total income, and per capita income. The Twin City-Southeast Complex falls in this category. Of the economic areas in Minnesota, Economic Area B is included (Metropolitan Minneapolis-St. Paul and suburbs).

Table 5 shows that nationally population increased by 19 percent, total

personal income by 76 percent, and per capita income by 48 percent during the 10-year period. The Twin City-Southeast Complex increased population by 23 percent, total personal income by 123 percent, and per capita income by 82 percent.

2. Above average increases in total and per capita income; below average increases in population. The State of Minnesota is included in this category. Minnesota increased in total personal and per capita income faster than the U. S. average. Population increase was slower than the U. S. average.

Also included in this category is the entire Northeast Complex and, individually, Economic Areas 2, 4, 6, and 7. Economic Area 6 had a 209-percent increase in total personal income and 166-percent increase in per capita income—the largest increases recorded.

3. Above average increases in per capita income; below average increases in population and total income. This category includes the Agricultural Complex and Economic Areas 1, 3, and 5.

4. Below average increases in population, total personal income, and per capita income. Economic Area 8 in Southwestern Minnesota was the only area included in this category.

Summary of Growth Patterns

The relationship between population growth and income is highly complex. The three economic measures presented here should be viewed only as diagnostic tools. This diagnosis does, however, provide some generalizations about economic growth in Minnesota in the 50's:

1. The Twin City-Southeast Complex with its rapidly increasing nonfarm industry grew at a rate exceeding the national average.

2. Per capita incomes in the Northeast Complex, at a much lower base in 1949, are growing faster than the U. S. percentagewise but **slower** on an absolute income basis. In addition, population growth lagged behind that of the state and the nation. This suggests that substantial outmigration took place which reduces the potential total volume of economic activity.

3. Despite a net population loss of 1 percent from 1950 to 1960 and the lowest per capita income base of any complex in 1949, incomes (total and per capita) in the Agricultural Complex grew the least percentagewise of the three complexes. Further outmigration might be expected in the Agricultural Complex unless nonfarm industry provides employment for persons not needed directly in farming.

As national income and population increases, with corresponding increases in per capita income, relatively more of the U. S.' total resources are devoted to the production of manufactured goods and less to agricultural production. National growth forces do not equally affect the demands for agricultural and nonagricultural commodities.

Since economic complexes in Minnesota differ widely in their type of output, these forces stimulate marked growth in some complexes and economic areas while not in others.

Intelligent planning for the future requires awareness of trends in economic activity, markets, and technology. The best future route for some areas might be consolidation of public services and orderly economic decline. For another area, it might be that of expanding industry and encouraging the economic activity best suited to its resource base. In either event, sound planning will pay dividends.

Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Service and United States Department of Agriculture Cooperating, Skuli Rutford, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

Agricultural Extension Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
SKULI RUTFORD, Director
Cooperative Agricultural Extension Work,
Acts of May 8 and June 30, 1914
OFFICIAL BUSINESS
5-62 2350

PENALTY FOR PRIVATE
USE TO AVOID PAY-
MENT OF POSTAGE, \$300