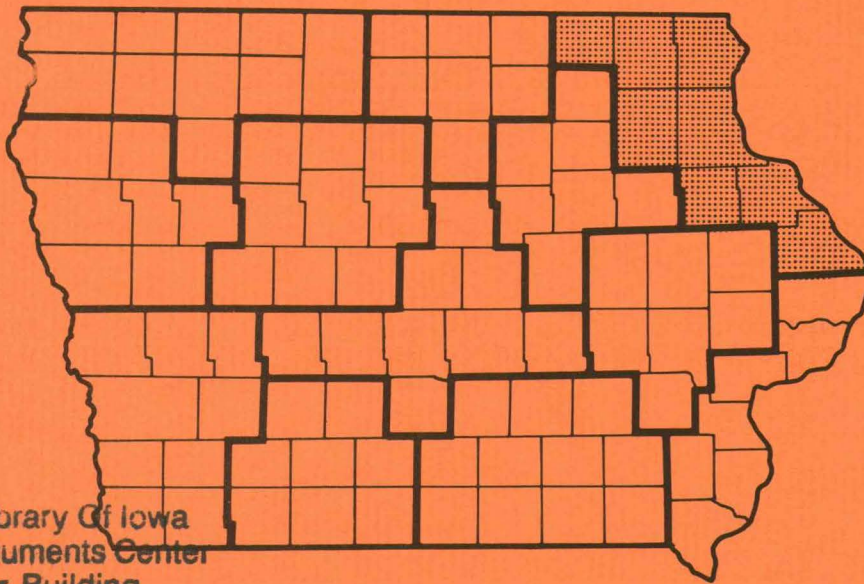


S
544.3
.I8
P36
no.
470-7
1970

An Economic Base Study of

IOWA'S NORTHEAST AREA



State Library Of Iowa
State Documents Center
Miller Building
Des Moines, Iowa

IOWA STATE UNIVERSITY of Science and Technology
COOPERATIVE EXTENSION SERVICE
Ames, Iowa.May 1970.Pm-470-7

C O N T E N T S

	Page
Introduction	2
The Export Base	2
The Changing Base	4
Export-Domestic Relationships	4
Employment by Sectors	7
Income	8
Agriculture	9
Farm Size and Sales	10
Growing Output	12
Manufacturing	13
Employment	13
Kinds of Manufacturing	14
Earnings and Wages	16
Wholesale-Retail Trade	18
Population Changes	20
Meaning of Changes	22
Age Mix -- Young and Old	23
Decisions and Future Directions	28
Goals for the Area	29
Functional Economic Areas	29
Some Final Thoughts	32

Cooperative Extension Service, Iowa State University of Science and Technology and the United States Department of Agriculture cooperating. Marvin A. Anderson, director, Ames, Iowa. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

AN ECONOMIC BASE STUDY OF IOWA'S NORTHEAST AREA

Introduction

This is a report of the economic activity and associated changes in an eight county area in Northeast Iowa. The counties included are Howard, Winneshiek, Allamakee, Fayette, Clayton, Delaware, Dubuque and Jackson.

The area is bounded by the state border with Wisconsin and Illinois on the east and Minnesota on the north. Dubuque is by far the largest city of the area, but the northern half of the area is distant from it. Dubuque does act as a central city for much of the southern half of the area and also for adjacent territory to the east. Parts of Howard, Winneshiek, Allamakee, Fayette and Clayton counties are more than 50 miles from any city of 25,000 or more. This relative isolation has held down commuting opportunities, but it has also slowed the shift of retail and service activities from small towns to larger towns and cities. The relatively rugged topography of the area suggests possibilities for recreational development. However, the area is competing with other highly suitable locations in Minnesota and Wisconsin for the recreation customer.

The area had a total population of about 220,000 in 1960. The estimated population in 1967 was just over 218,000. In the 10 years before 1960, the area had increased about 10,000 in population.

Total employment in the area has been increasing by a little more than one-half of one percent per year during the 1960's. Agriculture is continuing its long-term employment decline, while employment in most of the other sectors is growing.

Within the area the most rural communities are steadily declining in both employment and population while the larger towns and small cities show slow to moderate growth.

The Export Base

The employment analysis in this report uses the theory of the export base and its multiplier effect. An export base exists whenever an area specializes in the production of some products for which it finds markets outside the area.

Almost any populated area anywhere in the United States has an export base. The reason is that people want to use the full range of products produced by modern society, most of which are produced more inexpensively by volume production in other areas. An area earns the money to import this collection of desired products by producing and exporting a surplus of the goods with which it can best compete in state, national and world markets.

Workers who produce these exported goods are called export employees. The number of export employees that can exist in an area is determined by the area's success in selling to the "outside world."

Prepared by Marvin Julius, Extension Economist

A second class of workers, called domestic workers exists to furnish the services and the goods that can be most efficiently produced locally when demanded for local use. Examples of domestic employees are retail workers, teachers, ministers, local government officials and all of the others who produce for the local market. The number of domestic workers that can exist in an area is determined by the number of export employees in an area. The export employees create the original demand for locally produced goods and services.

In present-day Iowa areas of about 50,000 employment, the domestic workers usually make up about one-half of the total work force. Since the other half are export workers, the relationship between export and domestic workers is often described as a one-to-one ratio. Actually this ratio varies somewhat according to the employment total of the area, the industry mix and the point in time at which the ratio is measured.

Figure 1 illustrates the receipt of outside money in return for exports, the circulation of this money in the area to facilitate domestic activities and the payment of this money to the outside in return for imports.

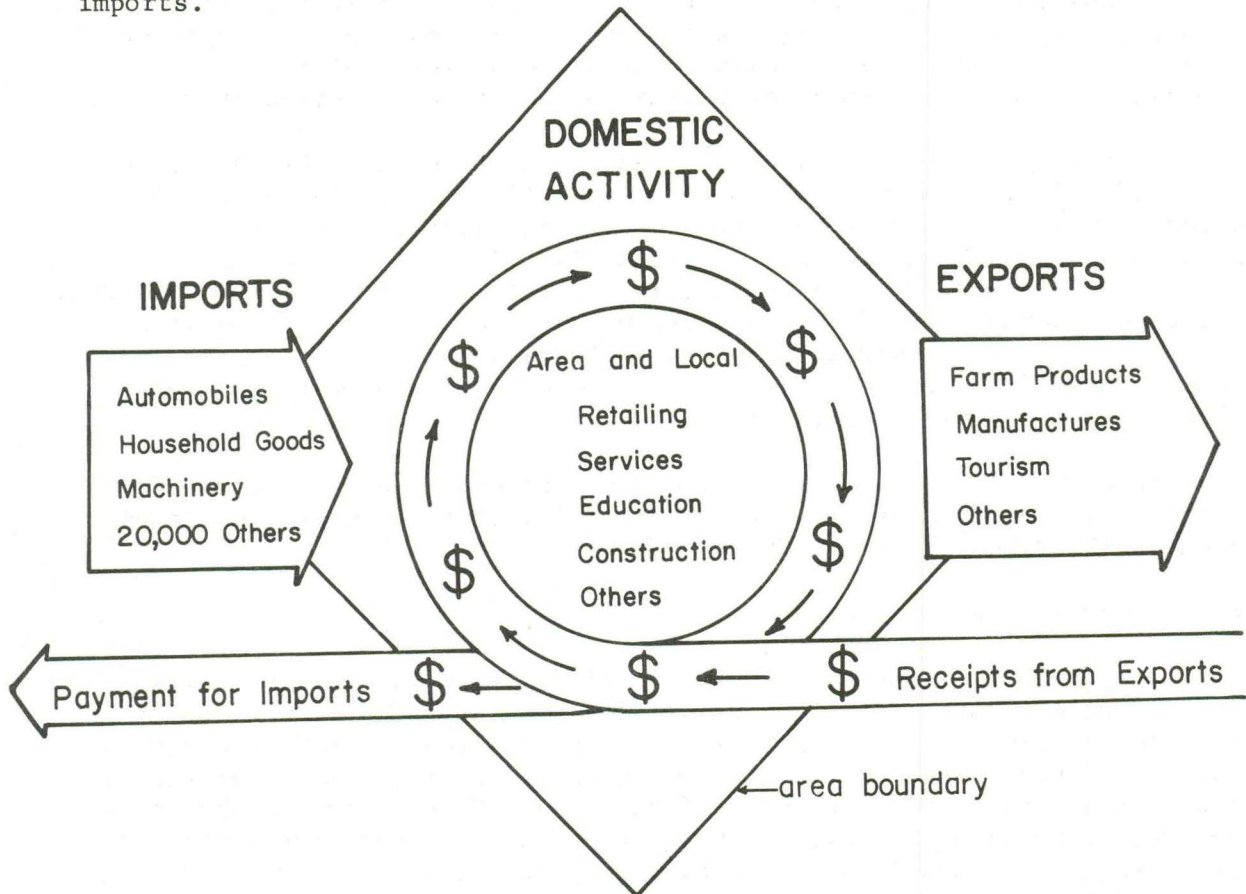


Figure 1. Export Domestic and Import Relationships.

The Changing Base

Table 1 provides employment comparison information for the Northeast area for 1960 and 1967. Employment is divided into export and domestic categories for each type of export activity. Both male and female employment is included, but is not separately identified.

Agriculture has been and still is the largest export sector in this area. It provided about one-half of the area's export employment in 1960 and slightly under one-half of the export employment in 1967. Between these years the export employment of agriculture declined by 2,617. This degree of employment decline is typical for agriculture in all areas of Iowa as labor in farming continues to be replaced by capital in the cultivation of a fixed amount of land.

Manufacturing export activity has partially counteracted the agricultural export decline with a gain of 1,766 employees during the 1960-1967 period. In percentage terms, manufacturing export increased from 33 percent of total export in 1960 to 39 percent in 1967.

The other sectors each provide less than 10 percent of the total export employment and changes are relatively small compared to the changes in agriculture and manufacturing. Out-commuting is a substantial export activity for several communities and counties, but the area as a whole is a net labor importer because of heavy in-commuting at Dubuque.

In total, export employment declined by 1,231 workers between 1960 and 1967. In 1960 there were about 97 domestic workers for every 100 export workers. If the same ratio had existed also in 1967, total employment would have declined by 2,425 (1,231 export workers plus 1,194 domestic workers). Actually, an increase of 4,850 workers occurred. The export-domestic ratio had shifted upward (to 113 domestic workers for every 100 export workers) by 1967. A small decrease in export employment had not caused a decrease in domestic employment because of a shift in the ratio over the seven year period.

However, the change in export employment did have an effect. If total export employment had not declined, domestic employment would have been 46,687 rather than 44,886 in 1967.

Export-Domestic Relationships

The employment generating effects of export activity are represented in the three columns of Table 1, entitled "Domestic Employment." For example, in 1960, 23,182 employees are listed across from "Agricultural export." These persons have jobs which can be said to exist because of the agricultural export activity of the area. Some of these jobs can be thought of as directly related to agriculture. Examples are fertilizer salesmen, tank truck drivers and machinery repairmen. Other jobs are indirectly related to agriculture. An example is the barber whose customers include fertilizer salesmen, tank truck drivers and machinery repairmen. People who serve both farmers and non-farmers, as the barber might, can be both directly and indirectly dependent on agricultural export activity.

Table 1. Area Export and Domestic Relationships

Type of Activity	Export Employment			Domestic Employment		
	1960	1967	Change	1960	1967	Change
Agricultural export	21,607	18,990	-2,617	23,182	26,775	3,593
Construction and Mining export	306	582	276	270	508	238
Manufacturing export	13,674	15,440	1,766	11,323	12,962	1,639
Transportation, Communications and Utilities export	1,366	980	-386	1,102	822	-280
Wholesale and Retail export	2,831	2,678	-153	2,923	2,712	-211
Finance, Insurance & Real Estate export	207	83	-124	166	66	-100
Services export	1,325	1,332	7	1,070	1,041	-29
Area	41,316	40,085	-1,231	40,036	44,886	4,850

In total 23,182 represents the number of domestic jobs of many kinds that could not have existed in the area in 1960 if agricultural export had not been operating at a level of 21,607 employees in 1960.

In some ways, the relationship between a sector's export activity and the domestic employment related to it is a unique one. No two export activities have the same export-domestic ratio for any year (except by coincidence). This is because each sector has its individual pattern for the portion of its inputs which it buys locally and that which it imports. Agriculture, for example, is a relatively heavy purchaser from local wholesale and retail outlets, while manufacturing is more likely to buy raw materials and tools in quantity lots from distant sales outlets.

In the between years comparison, agricultural export decline was counteracted by an increase of 3,593 in the domestic employment related to it. The ratio of 26,775 domestic workers to 18,990 export workers that existed for agriculture in 1967 is equivalent to 142 domestic workers for every 100 export workers. This is up sharply from the 107 to 100 ratio which existed in 1960.

Table 2. Total Effects of Export Activity

Type of Activity	Export Plus Domestic Employment		
	1960	1967	Change
Agricultural export	44,789	45,765	976
Construction and Mining export	576	1,090	514
Manufacturing export	24,997	28,402	3,405
Transportation, Communications and Utilities export	2,468	1,802	-666
Wholesale and Retail export	5,754	5,390	-364
Finance, Insurance and Real Estate export	373	149	-224
Services export	2,395	2,373	-22
Area	81,352	84,971	3,619

The domestic employment related to manufacturing showed the second largest rise (1,639 employees) between 1960 and 1967. This growth can be attributed mostly to the rise of manufacturing export employment during this period.

Table 2 provides a comparison of the relative importance of the export activity of each sector to the area. In 1967, for example, agricultural export accounted for a total of 45,765 jobs when we count both the export employment of agriculture and the domestic employment related to it. This was 54 percent of the total employment of the area. Manufacturing export was responsible for 33 percent of the total employment, and wholesale and retail export provided for 6 percent of the total. In 1960 the comparable percentages were 55 percent for agricultural export, 30 percent for manufacturing and 7 percent for wholesale and retail.

Employment by Sectors

Table 3 shows employment identified by sectors for both 1960 and 1967 and the change in each sector during the period. The employment in each sector includes both the export and domestic employment of that sector. The domestic employment in this table is included with the sector to which it belongs and not with the sector to which it relates in an export-domestic sense.

Table 3 provides a good picture of the change of composition of the labor force, but it does not provide a cause and effect picture of employment shifts. Table 3 shows that agriculture jobs declined by 3,198 during the seven year period and that the sector slipped from 30 percent of total employment in 1960 to 24 percent in 1967. Corresponding increases were registered by services which picked up 2 percent of the total and by other sectors with 1 percent jumps.

One employment shift that is not revealed by tables 1, 2, or 3 is the increasing proportion of females in the labor force. The gains in the trade and services sectors may have been 50 percent female while the loss in counted employment in agriculture was probably more than 85 percent male. It is probable that, while total employment gained between 1960 and 1967, male employment declined. The number of families in the area thus may have declined as the increased employment was accomplished by a shift to more workers per family.

Table 3. Employment by Sectors 1960-1967

Sector	1960	Employment		1960	Percent of Total	
		1967	Change		1967	Change
Agriculture	23,764	20,566	-3,198	30	24	-6
Construction and Mining	4,255	4,919	664	5	6	1
Manufacturing	15,311	17,144	1,833	19	20	1
Transportation, Communications, & Utilities	4,456	4,216	-240	5	5	0
Wholesale & Retail	14,466	16,259	1,793	18	19	1
Finance, Insurance & Real Estate	1,902	2,181	279	2	3	1
Services	17,198	19,686	2,488	21	23	2
Area	81,352	84,971	3,619	100	100	0

Income

The incomes of individuals and families and changes in these incomes are very important in measuring the economic progress of an area. It can be preferable to have a declining employment and population situation if the decline is associated with fuller employment and higher incomes for the remaining people. This type of decline is occurring in much of rural America, including the rural parts of the Northeast Iowa area. Income per farmer is generally rising as farm consolidation continues, but an associated result is fewer farmers and fewer merchants to serve remaining farm households. The alternative of a constant number of farmers with declining incomes would probably be even less desirable for both farmers and merchants.

The most recent overall measurement of the income levels in the Northeast area was made with the population census of 1960. We will not have a later one for comparison purposes until after 1970. As a substitute for the overall income picture for recent years, a comparison of average annual earnings of private wage and salary workers for 1959 and 1967 for each county is presented in table 4 with the Iowa average as a comparison base.

The earnings information on self-employed persons and government employed persons is not included in Table 4. Also missing is an information on income from property ownership and from transfer payments such as social security allotments.

Table 4 is, thus, only an indicator of the income situation in the counties of the area, particularly for non-agricultural employment. It indicates, except for Dubuque County, that incomes were not as high as the Iowa average in either 1960 or 1967. On the other hand the increase in several counties was equal to or above the Iowa average per worker increase. Generally, Table 4 would indicate that the area made progress in improving productivity and earnings per worker during the time that a moderate increase in employment was also occurring.

Higher average family incomes allow families to buy more goods and services. This in turn creates a need for more domestic workers to produce or deliver or retail these goods and services. As a result the domestic-export ratio changes to a higher level.

Table 4. Average Annual Earnings, Private Wage & Salary Workers

County	1959*	1967	Change
Allamakee	\$2,868	\$3,920	\$1,052
Clayton	2,568	3,444	876
Delaware	2,956	3,720	764
Dubuque	4,644	5,660	1,016
Fayette	3,196	3,992	796
Howard	2,656	3,376	720
Jackson	3,904	3,576	-328
Winneshiek	3,588	3,800	212
Iowa Average	4,280	5,028	748

Source: County Business Patterns

* Adjusted to 1967 dollars

The average family income increase is probably the most important factor of those which tend to increase the domestic-export ratio. However, it is supplemented in the agriculture sector by the tendency of farmers to purchase increasing amounts of production services (feed processing, fertilizer spreading, etc.) and locally sold production inputs (fertilizer, chemicals, feed supplements, etc.).

Agriculture

The structure of agriculture in the Northeast area was last described in detail by the 1964 Census of Agriculture. Selected information from this census is presented in the following paragraphs.

The total number of operations classified as farms in 1964 was 15,272. Of these, 90 percent or 13,820 were classified as commercial farms. Generally, under Iowa conditions, a commercial farm is one which has sales of \$2,500 or more per year. Non-commercial farms have less than \$2,500 of sales per year and usually are operated by persons with other employment or by partially retired persons over 65 years of age. However, these same types of people are also found on some commercial farms.

Table 5 gives some information on the commercial farms of the area in regard to certain characteristics. In 1964, 438 of them were 500 acres or over in size. This was 3 percent of all the commercial farms in the area. The comparable percentage for all of Iowa was 6 percent. Hiring of a substantial amount of labor occurred on 10 percent of the area farms as compared to 10 percent for Iowa. Looking at the numbers in a different way, it can be said that about 90 percent of the commercial farms had less than the equivalent of a full-time hired-man.

The practice of working off the farm by the operator appears to be less prevalent in this area than for the state as a whole. Probably this is due to a relative scarcity of non-farm jobs as compared to the situations near Iowa's large cities.

Farming at a commercial level by operators 65 years of age or over is somewhat less prevalent here than for the state as a whole. Generally, the percentages associated with this characteristic are higher in Southern Iowa and lower in Northern Iowa.

Table 5. Commercial Farms with Selected Characteristics, 1964

<u>Characteristic</u>	<u>Area Number</u>	<u>Area Percent</u>	<u>Iowa Percent</u>
500 acres or over in size	438	3	6
Hiring 150 days of labor or more	1,447	10	10
Operator working off farm 100 days or more	1,334	10	12
Operator 65 years of age or older	929	7	8

Source: Agriculture Census
Analysis by H. B. Howell, Extension Economist

Farm Size and Sales

Table 6 presents the distribution of farms (commercial and non-commercial) of the area according to size in total acres. Farms smaller than 140 acres accounted for 32 percent of all farms, but only 14 percent of the total farmland was included in farms of this size group. At the other extreme, 23 percent of the farms were 260 acres or over and 43 percent of the farmland was in farms of this group. By 1970 it is likely that at least 50 percent of the land will be in farms of 320 acres or larger. This statistic seems to illustrate the march of farm technology and resulting consolidation more dramatically than does the average farm size measure, which is often pulled down by a larger number of small part-time and retirement farming units.

Table 6. Farms by Size in Acres, 1964

Size Class	Percent of Farms	Percent of Land in Farms
0-139 acres	32	14
140-179 acres	20	16
180-259 acres	25	27
260 acres and over	23	43

Source: Agriculture Census
Analysis by H. B. Howell, Extension Economist

Table 7 also shows a size distribution of farms by product sales volume in dollars. Since both livestock and crop production may be reflected in sales volume, it is usually a better indicator of farm income than is size in acres alone. Most of the farms with sales over \$30,000 (6 percent of all the farms) were probably producing adequate returns for the labor and capital and management time involved. Most of the farms with sales under \$10,000 were probably producing quite low returns for the labor and management time involved, except for those farmers who used a substantial amount of their time in off-farm employment.

The 37 percent of the farms with sales of \$10,000 to \$29,999 includes most of the typical family farm situations of the middle 1960's. Incomes are not as high as the farmers and their families might wish, but neither are they so poor as to cause large-scale desertion from farming.

Table 7. Farms by Product Sales Volume, 1964

Sales Class	Percent of Farms	Percent of Total Sales
\$30,000 and over	6	21
\$10,000 to \$29,999	37	59
Less than \$10,000	57	20

Source: Agriculture Census
Analysis by H. B. Howell, Extension Economist

Growing Output

Table 8 is presented in order to show that farming is not a declining industry in terms of output. Between the two time periods shown, a 7 year span of time on the average, some dramatic increases occurred. Corn production was up almost 12 million bushels for a 26 percent increase. Soybean production was up 136 percent, fed cattle up 42 percent, beef cow numbers up 47 percent and swine up 2 percent. Lamb feeding and raising were both down, but these are minor enterprises for this area. The number of milk cows in the area did not change. If an index of over-all farm output for Iowa areas were available, it seems likely that total output of Northeast Iowa would show an increase of more than 20 percent for the 7 year period.

The percentage changes for each enterprise of the area can be compared to comparable changes for Iowa. It appears that Northeast Iowa has not been concentrating particularly on one type of growth, but has been expanding faster than the rate for the state in almost all enterprises. Corn output, beef feeding, beef cow numbers and swine production have grown about the same as the Iowa averages. The soybean percentage increase is one-third higher than the state growth rate, and dairy cows have not declined in numbers in the area during a time when the state was losing almost one-fourth of its cows.

Table 8. Agricultural Output

Enterprise	Unit	1958-60	1965-67	Change	Percent Change	
					Area	Iowa
Corn	1000 bu	46,652	58,615	11,963	25.6	23.9
Soybeans	1000 bu	1,148	2,705	1,557	135.6	100.2
Fed cattle	1000 head	89	126	37	41.6	44.9
Beef cows	1000 head	76	112	36	47.4	39.2
Pigs born	1000 head	2,217	2,270	53	2.4	2.4
Fed lambs	1000 head	21	15	-6	-28.6	-27.4
Lambs born	1000 head	39	30	-9	-23.1	-27.7
Milk cows	1000 head	241	241	-0	0	-23.8

Source: Iowa Assessors Annual Farm Census, Adjusted
 Analysis by Gene Futrell, Marvin Skadberg, Allan Rahn, Extension
 Economists.

Manufacturing

Manufacturing is a sector of growing importance in the area. The one large export and related employment increase of the 1960-1967 period was the over 3,000 additional employment in manufacturing export plus related employment. However, the impact from manufacturing is still relatively minor in the Northern part of the area because of the distance from a large industrial city. As long as this part of the area lacks an employment center comparable to Dubuque or Mason City or Rochester, Minnesota, it is not likely to develop a manufacturing growth potential that can absorb more than a portion of the surplus labor produced in the area.

On the other hand, the amount of manufacturing growth that has occurred has probably eased considerably the strains of agricultural adjustment. The small cities and most large towns of the area have been helped to maintain or moderately increase their populations. A number of smaller towns have benefited similarly, either from the location of small manufacturing plants in the towns or by serving as residence locations for commuters working in plants in nearby towns or cities.

Table 9. Manufacturing Employment

County	1960	1967	Change	Percent County is of Area with respect to		
				1960 Employ- ment	1960-67 Change	1967 Employ- ment
Allamakee	511	536	25	3	1	3
Clayton	694	835	141	5	8	5
Delaware	361	497	136	2	7	3
Dubuque	10,347	12,415	2,068	68	113	72
Fayette	890	1,174	284	6	16	7
Howard	215	291	76	1	4	2
Jackson	1,862	845	-1,017	12	-56	5
Winneshiek	431	551	120	3	7	3
Area	15,311	17,144	1,833			

Employment

Table 9 shows the employment in manufacturing for each of the counties of the area for 1960 and 1967 and the change during the period. A noticeable characteristic is the moderate dispersion of manufacturing over parts of the area. Dubuque County, of course, has the dominant concentration of manufacturing jobs, but Clayton, Fayette and Jackson counties each have had or now have a job count in the vicinity of 1,000. Jackson County is almost unique in the state in the degree of variability from year to year in manufacturing employment. All other counties have shown increases in the 1960-67 period, but the combined increases of all counties except Dubuque were not as much as the decrease which occurred in Jackson County between 1960-1967.

Kinds of Manufacturing

The diversity of manufacturing activity is illustrated in Table 10. It would be difficult to describe a typical manufacturing plant. Of the 324 individual plants in the area in 1963, 251 had less than 20 employees. On the other hand four plants had 500 or more employees and two of these had over 1,000.

Manufacturing activity is divided into some general categories in Table 10 in order to provide some understanding of the reasons for manufacturing in the area. "Processing of agricultural produce" is the category that includes meat packing, animal feed production, dairy products processing, and other activities connected with food or feed. This category covered 27 plants including one of the two largest plants, but only one-sixth of the plants with more than 100 workers.

A second category is "Processing of other local resources." This category included 53 plants, but 51 of these were in the smallest size category with less than 20 employees each. Almost all of the plants in this category in the Northeast area were engaged in sawmill operation or concrete mixing or forming. A few of the others were engaged in operations involving wood or clay products. The Northeast area generally lacks sizable concentrations of gypsum, limestone, or clay needed to support large-scale manufacturing in this category.

"Production of non-feed inputs for agriculture" includes mainly farm machinery production, fertilizer production and animal biological products. There were 10 such plants in 1963 including one of the two largest. The number of small fertilizer plants may have increased since 1963.

"Area newspapers and printing" is a manufacturing category because printing is defined as a manufacturing operation. This category includes all of the newspapers of the area, and these accounted for a large part of the 36 smallest plants in this category.

The four categories described so far have the common characteristic of being, to some degree, attached to the area. The plants of the first three categories fit in with the agricultural and natural resources of the area. The newspapers and printers of the fourth category exist to serve the residents and advertisers of the area. In total, the four categories included 231 plants in 1963.

The other 93 plants have been categorized as non-attached manufacturing -- non-attached in the sense that neither the raw materials used, the products produced, nor the markets served would indicate that plants like these would be expected to exist in the area. Products of this group include millwork products, sporting and athletic goods, signs and displays, metal stampings, boiler shop products, construction machinery, electronic components and at least 30 other kinds of products.

Much of the increase of manufacturing employment since 1960 appears to have been in the non-attached category. Many of the "non-attached" firms were probably started by local persons with the aid of some local financing. Many may have started and failed over the years, but a few have grown to moderate size and many others have stayed small but profitable.

Table 10. Area Manufacturing by Size of Plant and Type of Product - 1963

<u>Type of Mfg. Activity</u>	Number of Plants with Employment of -						
	<u>1-19</u>	<u>20-49</u>	<u>50-99</u>	<u>100-249</u>	<u>250-499</u>	<u>500-999</u>	<u>All Plants</u>
All Types	251	36	18	13	2	4	324
Processing of Ag. Products	106	16	2	2	0	1	127
Processing of Other Local Resources	51	2	0	0	0	0	53
Production of Non-feed Inputs for Ag.	6	0	3	0	0	1	10
Area Newspapers and Printing	36	3	0	2	0	0	41
Total Attached Mfg.	199	21	5	4	0	2	231
Non-attached Mfg.	52	15	13	9	2	2	93

Source: Manufacturing Census

Non-attached plants owned and operated by outside interests have usually been established in order to use an underemployed supply of labor. Frequently, this is female labor from families where men are not fully employed or highly paid.

In most cases the non-attached type of plant will be established, or expansion occur, in a community that provides some long-term capital to the firm. The capital may be an outright gift or subsidy, but usually it is recoverable through some sort of rental or lease-purchase arrangement. In either case, an initial investment of local capital is required. The amount may be as little as \$500 or as much as \$5,000 per additional employee.

Earnings and Wages

In most Iowa areas with a large central city, the county which encloses the central city will have the highest average yearly earnings and hourly wage for production workers. This county will also be one of the highest in average yearly earnings of management, supervisory and related personnel.

Several characteristics are usually associated with the higher earnings levels of the central city. Usually, much of the labor force is organized. Some of the larger plants are of industries which have been among the national leaders in wage levels. Large segments of the labor force consist of stable long-term employees who are highly skilled and experienced. The high productivity of the workers has been supplemented by large capital investments which, from the manager's standpoint, reduce the labor cost per unit of output; while, also, from the worker's standpoint, making a higher wage possible.

All of these characteristics are present in the Northeast area. Dubuque has been the leading county in all earnings level aspects. The latest detailed statistics available are from the Manufacturing Census of 1963. Table 11 gives some of these statistics.

In all three measures of earnings and wage levels, the outlying counties of the Northeast area were noticeably below the state average. Dubuque County was above the state average in every measure, but it was not one of the high counties of the state for any measure. Dubuque was very close to the state high in average hourly wage for production workers. The state highs are all in heavily industrialized counties which typically offer a large, stable, and skilled labor supply to the industrialist.

The less industrialized parts of the state, including most of the Northeast area, have provided a different type of opportunity. Since shortly after the end of World War II, the farms and towns of the area have produced an excess of labor which has created a steady out-migration pressure.

Many of the persons who would have to migrate out if no jobs were available will stay if a job with a moderate pay rate is available. The pay rate does not have to be as high as the rate in distant cities, because the person will trade off some pay differential for the opportunity to stay in his rural community. Some of these persons will eventually migrate, but they are easily replaced by others of the about-to-migrate group.

There is little reason for the plant management to raise wages substantially so long as the excess labor supply with desirable work habits continues to appear. The advantages of low labor cost outweigh the disadvantages of labor turnover for many of the plants that have located in rural areas. Many of these plants have competitors located in similar low-wage rural areas elsewhere in the nation. None of them can raise wages substantially until the low-cost labor supply has disappeared for all of them.

Table 11. Earnings of Manufacturing Employees, 1963

	Av. yearly earnings, management, supervisory, and related personnel	Av. yearly earnings, production workers	Av. hourly wage, production workers
Iowa Average	\$7,008	\$5,415	\$2.68
Dubuque County	7,216	6,226	3.19
Highest of Other Area Counties	6,700	4,939	2.65
Lowest of Area Counties	3,643	2,990	1.49
Highest of Iowa Counties	8,114	6,680	3.25
Lowest of Iowa Counties	3,000	2,738	1.41

Source: Manufacturing Census

Wholesale--Retail Trade

Wholesale and retail trade firms are heavily oriented toward domestic activity. A characteristic of domestic employment is its relative dispersion over the area which it serves. The main street businesses of the numerous uniformly spaced small towns are operated primarily by domestic employees. A second and contradictory characteristic is the tendency for some parts of domestic activity to migrate to larger population centers. A result is the relatively faster growth of trade and services in larger cities. A third characteristic is the tendency of some farm input suppliers and farm produce buyers to avoid the congestion of large central cities.

Two sets of information on wholesale and retail trade are presented to illustrate the magnitude of the activity and the changes within the area. An analysis of retail "recurring type" sales by county for the years 1954 and 1963 is presented in Table 12. Table 13 presents employment in trade by county for the years 1960 and 1967.

The retail recurring type sales do not include lumber, building materials, farm equipment, and hardware sales. The sales that are left are primarily for household use, but some farm inputs purchased regularly (primarily petroleum and feed) are also included. The recurring type sales totals are believed to provide a measure of market potential with less year to year variability than a measure which includes sales of major investment items.

From Table 12 we can gain some feeling of market coverage and volume through the 1950's and early 1960's. In 1954 the area's recurring type sales were about \$216 million in 1963 prices. By 1963 the sales had increased to \$238 million for a 10 percent gain. This was a period of major percentage gain for Howard and Delaware counties; moderate gain for Allamakee, Dubuque, Fayette, and Jackson counties; slight gain for Winneshek County and a loss for Clayton County.

The measure of recurring type retail sales per capita gives a general indication of centralization of shopping patterns. This measure tends to be high when residents of a county do most of their shopping within its borders and, in addition, one or more towns of the county serve a trade territory larger than the county. In the Northeast area in 1963, Dubuque County had the highest sales per capita indicating that Dubuque was serving as an area shopping center for many items. Lower, but still above average, degrees of centralization or loyalty to home town merchants existed in Allamakee, Fayette, and Jackson counties.

A comparison between 1963 and a later year is not available in sales terms like those given in Table 12. It is necessary to switch to employment changes in wholesale and retail trade to bring the picture up to 1967. Table 13 presents this information by county for 1960 and 1967. The major gain in employment was in Dubuque County, both in actual numbers gained and in increasing its share of the total. This is consistent with the generally observed shift of population and trade to the bigger cities. Among the smaller counties, Clayton, Fayette and Jackson, each increased its previous share of the area's trade employment.

Table 12. Recurring Type Retail Sales

County	1954*	1963	Change	Percent Change	Per Capita 1963
Thousands of dollars					
Allamakee	15,279	16,736	1,457	9.5	\$1,047
Clayton	20,022	18,604	-1,418	-7.1	847
Delaware	12,971	17,066	4,095	31.6	923
Dubuque	90,091	101,662	11,571	12.8	1,270
Fayette	28,746	30,678	1,932	6.7	1,073
Howard	9,966	12,168	2,202	22.1	956
Jackson	20,389	22,778	2,389	11.7	1,098
Winneshiek	18,514	18,576	62	0.3	858
Total Area	215,978	238,268	22,290	10.3	1,082
Area less Dubuque	125,887	136,606	10,719	8.5	975
Iowa	2,964,168	3,245,793	281,625	9.5	1,177

Source: Census of Business

* 1954 sales adjusted to 1963 prices; inflator = 1.14

Table 13. Wholesale and Retail Employment

County	1960	1967	Change	Percent County is of Area with respect to		
				1960 Employment	1960-67 Change	1967 Employment
Allamakee	962	1,011	49	7	3	6
Clayton	1,214	1,408	194	8	11	9
Delaware	1,012	1,040	28	7	2	6
Dubuque	6,170	7,209	1,039	43	57	44
Fayette	1,869	2,123	254	13	14	13
Howard	746	778	32	5	2	5
Jackson	1,047	1,227	180	7	10	8
Winneshiek	1,446	1,463	17	10	1	9
Area	14,466	16,259	1,793			

Population Changes

The population of the Northeast area has increased with some fluctuation from 190,000 in 1880 to almost 217,000 in 1967. Table 14 gives information on population for counties and the area for several points in time between 1880 and 1967. Only Dubuque County has had continual population growth. Allamakee and Clayton counties have been declining in population since 1880. Howard County reached its population peak about 1900 and has declined steadily since then. The remaining four counties have had ups and downs, but all are lower now than they were in 1900. Fayette, which is second in size to Dubuque County, has come closest of the outlying counties to maintaining population level.

Additional population analysis can be done by considering the metropolitan Dubuque separately from the rest of the area. In 1920 the total population of Dubuque was about 39,000. By 1967 Dubuque had a population of almost 63,000. The 24,000 population gain in this metropolitan area is greater than the combined gain of all other towns that had gains.

The 19 largest non-metropolitan towns of the area in 1920 had a combined population of 41,000. The smallest of these towns was just over 1,000 population, and the largest was less than 8,000. By 1967 these same 19 towns had a combined population of about 56,000. All but three of them had gained population during this period. The non-metropolitan towns of the Northeast area are, on the average, growing about as rapidly as similar towns in many other parts of the state.

The smaller (less than 1,000 population) towns have produced a mixed pattern. Some have grown and some have declined. The open-country population has declined in almost every township of the area as farming continues to decrease its requirement for labor.

In addition to differential changes in total population among counties, towns and townships of the area, there are differential changes in the mix of age groups. By 1970 the area will have a slightly higher proportion of persons over 64 years of age than before. In contrast the proportion of persons under 15 years of age will be less than before due primarily to the sharp decline in births since 1962. The increasing numbers of old people who are staying in the area have tended to keep the total population of many small towns almost constant over the years. This has obscured the fact that almost all such towns are declining steadily in working age population. On the other hand, the recent decrease in births has dampened the total population growth of some larger towns that are steadily growing in numbers of jobs offered.

Table 14. Population Change

County	1880	1900	1920	1940	1950	1960	1967
Allamakee	19,791	18,711	17,285	17,184	16,351	15,982	14,647
Clayton	28,829	27,750	25,032	24,334	22,522	21,962	21,191
Delaware	17,950	19,185	18,183	18,487	17,734	18,483	17,775
Dubuque	42,996	56,403	58,262	63,768	71,337	80,048	85,443
Fayette	22,258	29,845	29,251	29,151	28,294	28,581	27,538
Howard	10,837	14,512	13,705	13,531	13,105	12,734	12,072
Jackson	23,771	23,615	19,931	19,181	18,622	20,754	18,557
Winneshiek	23,938	23,731	22,091	22,263	21,639	21,651	20,884
Area	190,370	213,752	203,740	207,899	209,604	220,195	217,107
State Total	1,624,615	2,231,853	2,404,021	2,538,268	2,621,073	2,757,537	2,875,994
Percent State Total	11.7	9.6	8.5	8.2	8.0	8.0	7.5

Meaning of Changes

A warning is called for concerning the use of the population level and increases or decreases in this level as a sole measure of progress or growth. A rural area may almost maintain its population because many young people choose to become under-employed farmers and small-town businessmen, rather than migrate to better opportunities elsewhere. The resulting community can become overly burdened with low-income people. A higher migration rate would have allowed a higher average income for the remaining population. Note that Allamakee County had the largest population loss in percentage terms between 1960-1967 and simultaneously (see Table 4) had the largest gain in average annual earnings of private wage and salary workers. It might be said that considering the alternatives available, Allamakee had the most progress during the 1960-1967 period. This is progress measured in terms of increased income per person, a frequently used measure of national progress.

Unlimited population decline, however, is not generally acceptable for all parts of a multi-county area. One reason is that increased income per person cannot be easily translated into increased purchasing power per person. The amount and variety of goods and services available within easy driving distance (generally not more than 50 miles) will shrink if there are no growing population centers within that distance. Allamakee County, and other rural communities, can accept or encourage population loss with resulting higher incomes and have an improved situation so long as shopping facilities and community institutions are growing at other locations within one hour's driving distance. The situation will not be nearly so improved if nearby cities are also declining in population and in services and goods offered.

The number and type of public and semi-public institutions which can be supported in an area at acceptable levels of cost and performance are closely related to the size and characteristics of the population. The changing geographical distribution of the population with an increasing concentration in the larger towns and cities has already been described. This concentration encourages the development of new church, school, medical, legal and other service facilities in the cities and the shrinkage of these services in the smaller towns and rural areas. The relocation process is even further encouraged by the willingness of many rural people to travel a considerable distance to patronize the more specialized city-located services.

Age Mix - Young and Old

Another important characteristic of the population is the age mix at a point in time. School boards and administrators, for example, are not nearly so concerned with the total population as with the numbers of young people. On the other hand, persons concerned with hospital and convalescent care are especially involved with the numbers of old people. Churches are involved with both extremes of the age range, but the two groups make very different demands on church facilities and services.

Table 15 presents a picture for each county of changes by selected 5 year age groups since 1940 and including an estimate for 1970. Some very substantial shifts are revealed for most counties. Many counties reached a peak in numbers of 0-4 age children in 1960 although some had a higher number in 1950. These are the children who, upon entering school between 1960 and 1965, substantially outnumbered the high school graduating classes. By 1970, the expected 0-4 years of age population will be lower than it was in 1940 for all except Dubuque and Jackson counties. For most counties it will be lower than at any time since before 1900. Grade school population will be dropping sharply in the early 1970's.

Children ages 5-9 will also be fewer in number in 1970 as compared to 1960. These children were born during the decline from Iowa's 1947-1962 "baby boom". Their numbers are of concern to people planning junior high school programs for the early 1970's.

The 10-14 age group will be larger than at any previous time in history for almost all counties of the Northeast area in 1970. High schools may therefore be quite crowded during the early 1970's unless adequate building programs have been completed.

School planners and planning committees should, of course, take a detailed look at the present and potential age distribution of their particular territories. In rural districts the numbers are likely to be dropping even faster than indicated by the overall county numbers. A number of already small (in enrollment terms) school districts will become much smaller. This problem will be moderately serious in Northeast Iowa because of the numbers of low enrollment districts already in existence.

Table 15. The Young and the Old - Northeast Extension Area

Year	<u>Age Range</u>					
	Young			Old		
	Age 0-4	Age 5-9	Age 10-14	Age 65-69	Age 70-74	Age 74 +
<u>Allamakee</u>						
1940	1564	1451	1570	648	546	636
1950	1865	1549	1424	686	539	738
1960	1891	1805	1639	768	603	819
1970	1189	1555	1697	704	588	925
 <u>Clayton</u>						
1940	2044	2021	2161	913	710	828
1950	2391	2042	1816	913	747	940
1960	2369	2265	2176	1026	803	1126
1970	1659	2121	2316	942	789	1254
 <u>Delaware</u>						
1940	1753	1653	1727	642	483	590
1950	2050	1805	1617	622	521	667
1960	2378	2197	1903	717	610	804
1970	1731	2204	2302	716	646	910
 <u>Dubuque</u>						
1940	5337	5171	5562	2211	1749	1998
1950	7846	6210	5338	2545	1969	2577
1960	10609	9057	7305	2790	2216	3266
1970	10442	13001	12494	2686	1955	3586
 <u>Fayette</u>						
1940	2508	2438	2618	1015	819	910
1950	3029	2535	2396	1097	858	1161
1960	3141	3064	2808	1277	990	1294
1970	2294	2813	3040	1155	996	1470

Table 15 - Cont'd.

Year	<u>Age Range</u>					
	Young			Old		
	Age 0-4	Age 5-9	Age 10-14	Age 65-69	Age 70-74	Age 74 +
<u>Howard</u>						
1940	1232	1141	1258	531	389	453
1950	1422	1213	1165	526	414	598
1960	1323	1351	1329	566	489	682
1970	868	1157	1250	566	489	777
 <u>Jackson</u>						
1940	1721	1636	1698	737	614	630
1950	1954	1731	1619	773	625	798
1960	2638	2258	1932	860	712	924
1970	2031	2132	2042	805	695	1025
 <u>Winneshiek</u>						
1940	1955	1868	1981	879	643	755
1950	2251	1917	1787	827	611	908
1960	2551	2238	1943	850	682	996
1970	1712	2178	2456	875	813	1046

Source: Population Census
 "Employment Estimates and Population Shifts" Marvin Julius,
 unpublished manuscript, May, 1969.

Figure 2 shows the territories covered by high school districts of the Northeast area in 1967. The districts are also shaded to indicate enrollment levels. There were no districts with less than 300 pupils in kindergarten through 12th grade. Five districts had an enrollment between 300 and 500 pupils, eight between 500 and 700 pupils and 17 each had enrollment of more than 700 pupils.

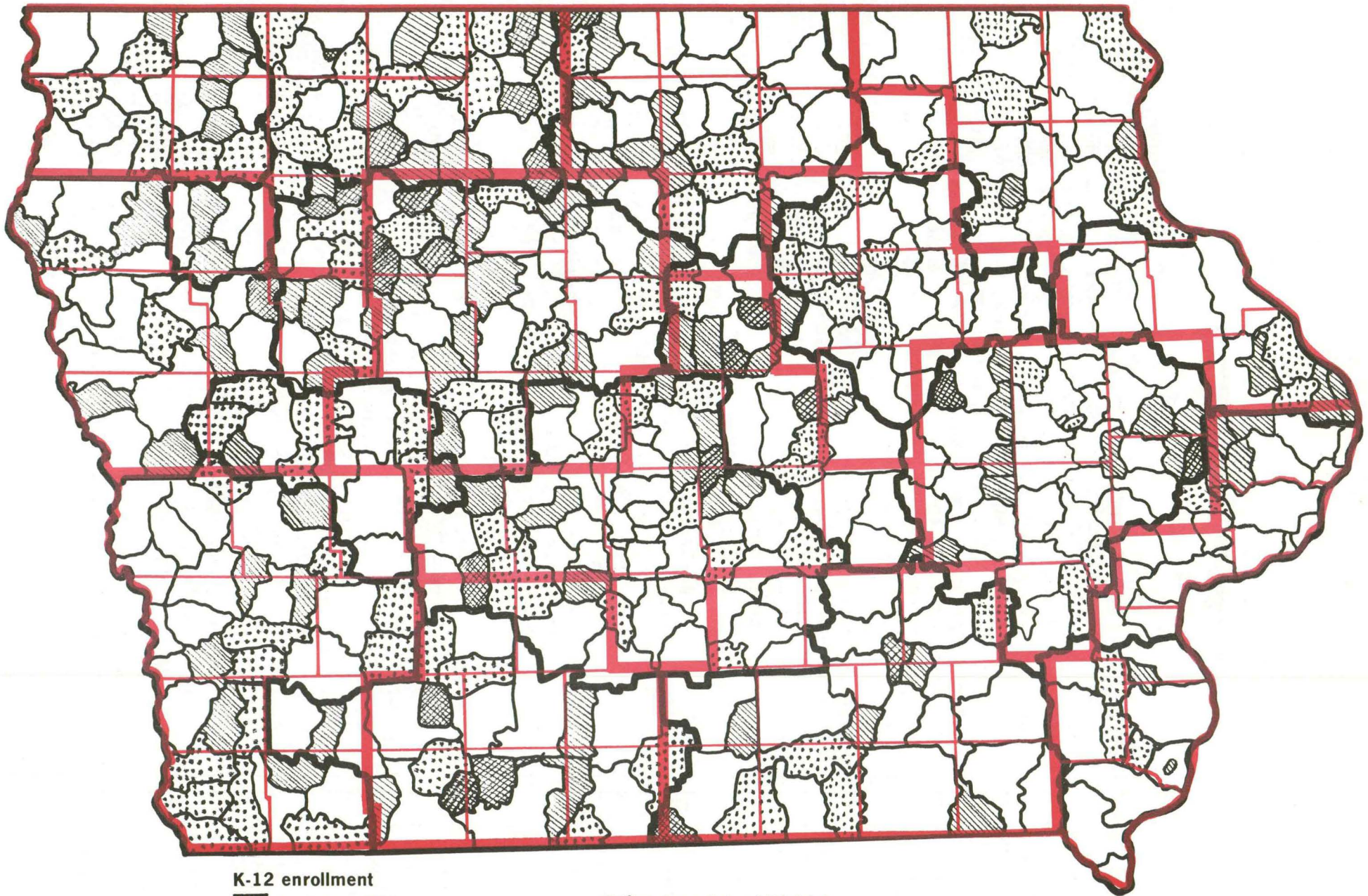
The too-small school district can be questioned from the stand-points of cost of operation per student and adequacy of performance, particularly at the high school level. If the teaching staff is specialized enough to raise performance levels, the cost of operation per student becomes very high. If cost of operation is to be held down, the number of subjects taught per teacher must be increased and performance will usually decline.

As people of the Northeast area observe and study these patterns of cost and performance and the declining numbers of students in the future, they are likely to have to consider additional school consolidations. It is likely, also, that the 17 school districts which had over 700 pupils in 1967 will be the focal points of most of the reconsolidations, and some of these may also be combined.

Table 15 also gives information on the numbers of older people who were in each county at census years and the estimated numbers for 1970. Two 5 year age groups are provided and an open-end group for 75 years of age and over. This latter group is one of the fastest growing of the entire population in all counties of the area. In 1970 each county is expected to have more people 75 years of age and over than at any time in history. For the ages between 65 and 75 years, the picture varies by counties, but generally there will be about as many people in these ages as there were in 1960, which was the high year up to that time for each county.

This build-up of the aging population indicates an increasing need for hospital, convalescent and nursing home facilities. Special recreational and housing programs for the aged may also need more attention.

FIGURE 2. Iowa High School District Map



K-12 enrollment
less than 300
300 to 499
500 to 699
700 or more

Area School District
Extension Areas
County Lines

Decisions and Future Directions

The Northeast area has undergone many changes in recent years. Most of this report to this point has served to document some of these changes. Before looking to the future it may be helpful to remember that the past changes all occurred as a result of a continual process of decision making. The largest number of decisions were those made by individuals and very small groups such as families, partnerships, and boards of directors. Decisions by young men on whether or not to try to farm, by bankers on whether to grant particular loans, by families on whether to remain in or leave the community and by businessmen on whether to expand or contract are a few of the many types of individual and small groups decisions that were made.

A second group of decisions resulted from community actions or from actions by large groups of people. Decisions to annex territory to a town, to build a new church or school building, to elect certain persons to public office and to allow or prohibit liquor by the drink are examples of public decisions by entire communities or counties or groups of counties or large numbers of individuals acting as a group.

Attempts to carry out decisions were not necessarily all successful. A decision by a young man with a family to start a farm operation on 120 acres in 1950 may have proved unwise. The growth of technology had pushed the optimum farm size to at least 240 acres and adequate incomes were only possible, with few exceptions, on the larger farms. The decision to be a small farmer was not generally possible because of a national trend in technology. Many other examples could be given of decisions that would have failed because national trends and forces were operating in an opposing direction.

Other decisions may not have been possible because of special local conditions. A shift to intensive and large-scale cropping operations in farming is inhibited by the topography of the area. The location at the corners of three states makes it politically difficult to get high speed transportation into the area. These are obvious deficiencies, but more subtle conditions may also be important. A strong and widely held opposition to any form of regimentation may delay zoning actions for many years. Historical jealousies or enmities between communities may prevent serious cooperation efforts, at least until some individuals have died or become inactive.

Between the extremes of the decisions impossible for national reasons and those impossible for local reasons is a wide range of possible decisions. The problem in charting future directions is two-fold. One part is to identify the proposed decisions which are impossible to implement and to eliminate them from consideration. The other is to select a limited set of compatible actions of highest pay-off from the whole set of decisions which are possible.

Decision making can usually be kept within the bounds of possible success if sufficient information is available and is used. Much of the information presented in this report was selected because it could provide general background for many types of decisions. For any particular decision there may be specialized information available from other sources.

Goals for One Area

Table 16 presents a number of group goals which might be favored by either some community or area leaders or some sub-groups of community or area populations. In various ways, decisions will be made to try for, or to abandon, each of these goals. The right hand side of the table presents the first impression judgment of the author regarding the possibility situation during the early 1970's for each goal. Other observers including knowledgeable people of the area, might change the list of goals and some of the possibility ratings. The table therefore should not be interpreted as a carefully researched guide to action. Its purpose rather is to illustrate the kinds of goals that people may suggest for acceptance or rejection and some thinking about these goals in terms of possibility of success.

Several pages could be written about each of the goals of Table 16, if the background of each were to be explored in detail. Such detailed discussion of specific projects must be left for follow-up educational efforts which may involve special meetings and special studies.

Functional Economic Area

The one topic of general concern that properly belongs in this study is the attitude of the area's communities to a functional economic area pattern. Much of the Northeast area of Iowa, which we have been describing, has not, thus far, developed the typical functional area in all its aspects that characterizes most of the Midwestern United States.

A typical functional economic area in rural Midwestern United States has a central city of at least 25,000 population. The functional economic area extends to about a fifty mile radius (by road distance) in all directions from the central city. The activities which require a very large population or labor base are located there. Among these are large department stores, factories with 500 or more employees, a junior college or community college, a regional hospital and clinic, wholesale warehouses, a multi-purpose airport, a daily newspaper and radio and television broadcasting. Because of the concentration of population and labor supply and community services already present, the central city can act as a growth center in attracting additional export activities to the area.

As the central city grows, the satellite cities and towns also tend to grow. This is partly because it is relatively easy to drive to big-city services from any place in the area. Also, many employers--particularly small firms--will choose small city and town locations if a central city is nearby.

Table 16. Illustrative Set of Goals for Consideration

Goals	Difficult for national reasons	Within poss- ibility range	Difficult for local reasons
Creation of a second central city			*
Recruitment of only high wage industries	*		
Stop the agriculture employment decline	*		
Have no school district below 3,500 enrollment			*
Have no school district below 1,000 enrollment		*	
Make tourism as large as agr. and mfg. export	*		
Use recreational facilities as an industry inducement		*	
Consolidate all churches in each town			*
Keep all young people in the area	*		
Put a doctor in each town	*		
Establish centralized multi-town medical facilities		*	
Establish regional planning activities with public funding		*	
Reorganize churches to have none below 350 members		*	
Consolidate counties into an area gov't.			*
Stop all shopping center development	*		
Establish more multi-gov't. joint programs		*	
Form a heavily funded area industry promotion group			*
Start interlocking memberships among local industry promotion groups		*	
Make representation on area committees proportional to population			*

A central metropolitan city as large as Dubuque tends to dominate its area in financial and business matters and, to some extent, in political matters. Resentment of this concentration of power tends to emerge in satellite cities and towns. Many area residents may favor scattering some of the activities so that all of the major transportation, education, health and other regional services do not tend to concentrate at one or two locations.

Some residents of the rapidly growing centers may, at certain times, support this view, because they are disturbed by the continuing need to expand the facilities of their city. There are areas (the Northwest Iowa-Southwest Minnesota territory is one) where a scattering of activities has occurred among a number of cities of less than 10,000 population.

It should be recognized, however, that areas without central cities of 25,000 or more population are not growing substantially in population and employment. The small central city will usually be growing at a good rate in relation to its previous size, but this growth is far short of the amount needed to counter the agricultural employment decline of the whole area. Many towns in such an area will, therefore, be declining in working age population.

The larger central city can support the high-capacity, multi-purpose airport needed for access to many of the markets of the future. It can attract the prospective employer who wants the major regional services all available for his employees at one place. It is not likely that any outside employer will favor a situation where the community college, the vocational school, the major hospital facility, the largest airport and the regional government service center are all located in different cities.

In many ways, therefore, the south half of the area has an interest in the continued growth of Dubuque. Consideration will likely be given in the future to proposals for area-wide financial support of some facilities and activities such as is now possible with an area school system.

The north half of the area could use a larger population center than it has. The Calmar location might be about right geographically, but from a realistic standpoint, Decorah has the best combination of present size and geographic location. The Decorah possibilities are somewhat restricted by the relative nearness of Waterloo, Mason City, Rochester, Minnesota and LaCrosse, Wisconsin.

To some extent, the people of the Northeast Area can change direction in regard to central city size versus more development of the outlying towns. The decision is not likely to be made by any one committee or group working with this problem alone. Rather, the final result will emerge from the accumulation of many location decisions by business firms, financial institutions, area school boards, a regional airport authority, regional planning commissions, area health committees, a council of governments, municipal and county governments and other institutions and individuals.

Each group of people responsible for making a location decision should remember that this decision also has an effect on the overall settlement pattern of the future. In many cases, the choice between any two or more places for a specific activity might be influenced by the relative effect of each location upon the overall settlement pattern.

Some Final Thoughts

This report may not have a uniformly optimistic tone. It tends toward a "realistic" look at the area, and it deals with both problems and success stories. This is in keeping with its purpose as a background document for leaders who are considering changes that they hope will better the area.

Likewise, the report is not meant to be a promotional piece for the area. On the other hand, there is no intent to downgrade promotional activities. Effective community leaders need to believe that their community and area are among the best of all communities and areas in which to live and work. If they have had failures, they will feel it was because they picked impossible projects or made mistakes in the education or action processes. They will not believe that there are basic faults in the community or area that prevent possible changes that most of the people are willing to support.

Constructive attitudes toward change and a good understanding of the facts of past and present situations are both essential for area progress. This report provides some of the necessary facts and interpretations. People of the area have provided and will provide the constructive and optimistic leadership.

STATE LIBRARY OF IOWA



3 1723 02055 0067