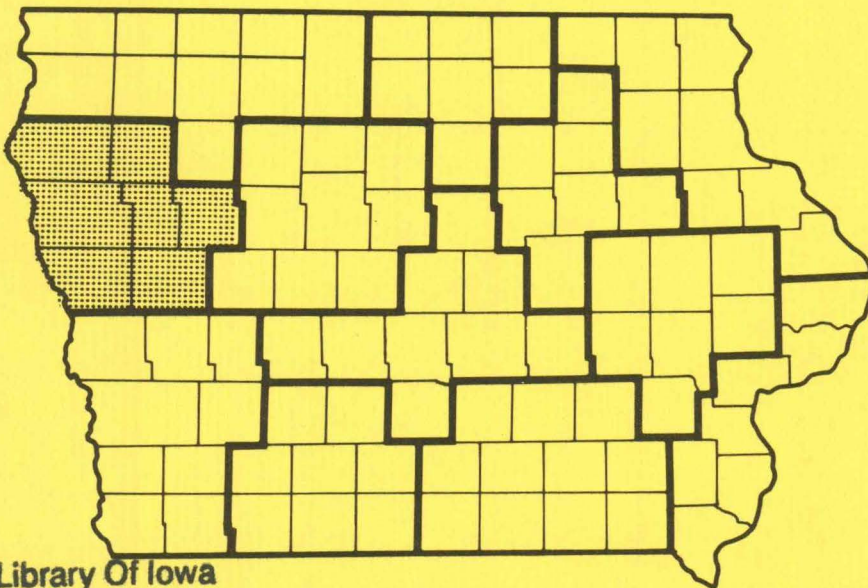


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An Economic Base Study of

IOWA'S SIOUX CITY AREA



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AN ECONOMIC BASE STUDY OF IOWA'S SIOUX CITY AREA

Introduction

This is a report of the economic activity and associated changes in a seven county area in western Iowa. The counties included are Plymouth, Cherokee, Woodbury, Ida, Sac, Monona, and Crawford.

The area lies along the western border of Iowa. In an economic sense it is only the east half of a natural multi-county area. Sioux City is the central city of this natural area which extends also into Nebraska and South Dakota. This report analyzes only the Iowa part of the total area but recognizes that many interstate relationships exist. On the Iowa side the Sioux City influence extends somewhat farther to the north than the designated boundary, and it is likely that most of Sac and Crawford counties are oriented to other major cities. The area is largely rural and agricultural except for Sioux City and its vicinity. However, industrialization has been evident in several of the outlying larger towns so that manufacturing employment opportunities are increasing as agricultural employment declines.

The area had a total population of about 210,000 in 1960. The estimated population in 1967 was just short of 213,000. In the 10 years before 1960, the area had remained almost constant in population.

Total employment in the area has been increasing by one percent per year during the 1960's. Agriculture is continuing its long-term employment decline, while employment in all 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 varying degrees of growth from slow to rapid.

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.

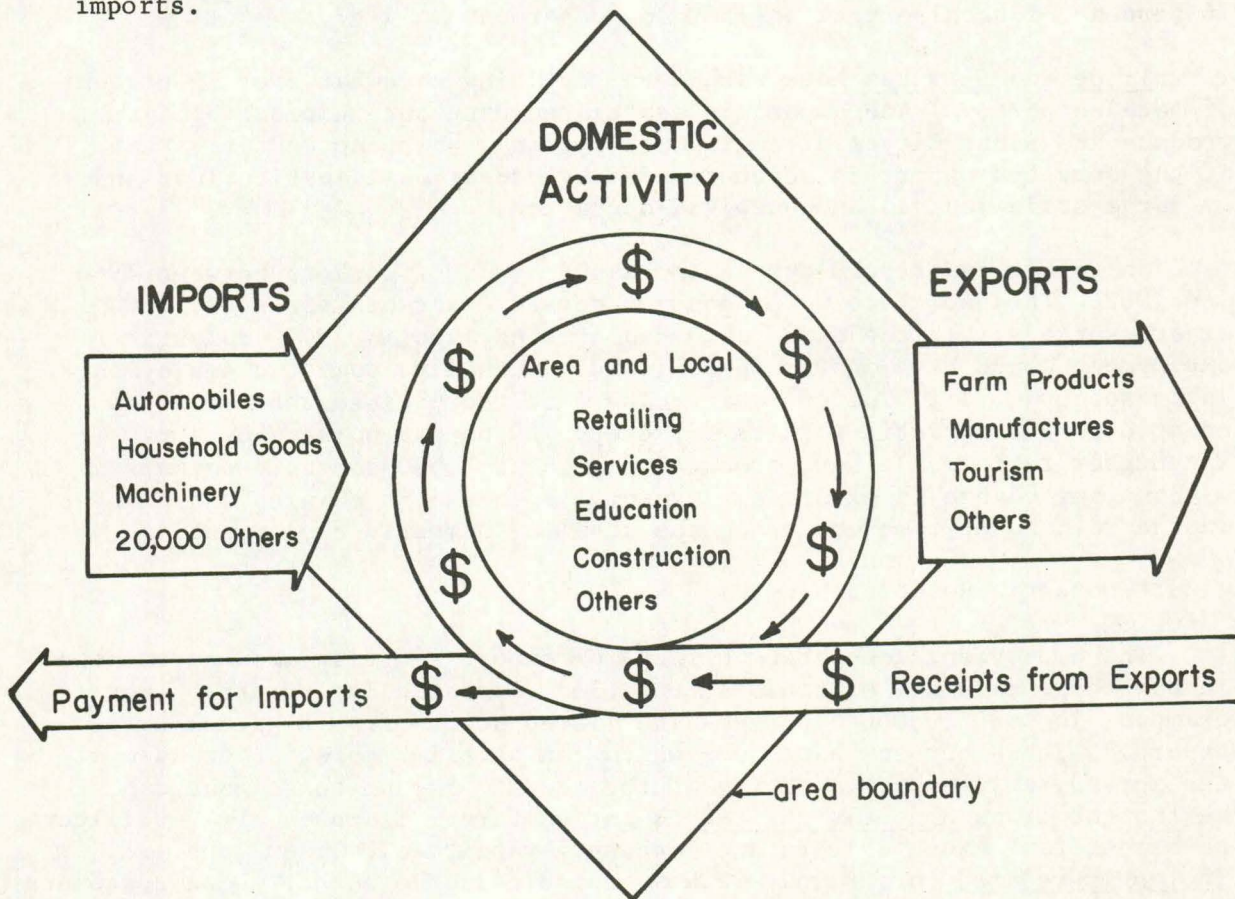


Figure 1. Export Domestic and Import Relationships.

The Changing Base

Table 1 provides employment comparison information for the Sioux City 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 an important export sector in this area. It provided almost two-fifths of the area's export employment in 1960 and almost one-third of the export employment in 1967. Between these years the export employment of agriculture declined by 2,310. 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 1,672 employees during the 1960-1967 period. In percentage terms, manufacturing export increased from 26 percent of total export in 1960 to 30 percent in 1967.

Trade and services have each been providing somewhat over 10 percent of total export. Trade export is associated with out-shipment of farm produce and Sioux City's strength as a regional shopping center. Much of the services export is accounted for by educational institutions and by large-scale medical and hospital operation.

In total, export employment increased by 1,062 workers between 1960 and 1967. In 1960 there were about 96 domestic workers for every 100 export workers. If the same ratio had existed also in 1967, domestic employment would have increased by 1,020. Actually, domestic employment increased by 4,715. The extra increase resulted because the ratio had changed to 105 domestic workers for every 100 export workers by 1967. The higher ratio would have produced a gain of 3,530 domestic workers without any change in export employment. Both export changes and changes in the ratio over time influence the level of domestic employment.

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 16,060 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	14,881	12,571	-2,310	16,060	17,951	1,891
Construction and Mining export	844	1,217	373	751	1,075	324
Manufacturing export	10,341	12,013	1,672	8,616	10,215	1,599
Transportation, Communications and Utilities export	2,126	2,304	178	1,725	1,956	231
Wholesale and Retail export	6,882	6,574	-308	7,179	6,775	-404
Finance, Insurance Real Estate export	955	1,165	210	775	936	161
Services export	3,375	4,622	1,247	2,738	3,651	913
Area	39,404	40,466	1,062	37,844	42,559	4,715

In total, 16,060 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 14,881 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 partially counteracted by an increase of 1,891 in the domestic employment related to it. The ratio of 17,951 domestic workers to 12,571 export workers that existed for agriculture in 1967 is equivalent to 143 domestic workers for every 100 export workers. This is up sharply from the 108 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	30,941	30,522	-419
Construction and Mining export	1,595	2,292	697
Manufacturing export	18,957	22,228	3,271
Transportation, Communications and Utilities export	3,851	4,260	409
Wholesale and Retail export	14,061	13,349	-712
Finance, Insurance and Real Estate export	1,730	2,101	371
Services export	6,113	8,273	2,160
Area	77,248	83,025	5,777

The domestic employment related to manufacturing showed the second largest rise (1,599 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 30,522 jobs when we count both the export employment of agriculture and the domestic employment related to it. This was 37 percent of the total employment of the area. Manufacturing export was responsible for 27 percent of the total employment, and wholesale and retail export provided for 16 percent of the total. In 1960 the comparable percentages were 40 percent for agricultural export, 25 percent for manufacturing and 18 percent for wholesale and retail. Services export increased from 8 percent to 10 percent of total employment accounted for.

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 2,811 during the seven year period and that the sector slipped from 22 percent of total employment in 1960 to 17 percent in 1967. Corresponding increases were registered by services with a 3 percent jump and Manufacturing and Finance each with 1 percent.

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 increased only slightly. The number of families in the area thus, may not have changed as the increased employment was accomplished by a shift to more workers per family.

Table 3. Employment by Sectors 1960-1967

Sector	Employment			Percent of Total		
	1960	1967	Change	1960	1967	Change
Agriculture	16,947	14,136	-2,811	22	17	-5
Construction & Mining	4,475	5,164	689	6	6	0
Manufacturing	12,148	13,866	1,718	16	17	1
Transportation, Communications, & Utilities	5,087	5,405	318	6	6	0
Wholesale & Retail	17,615	18,942	1,327	23	23	0
Finance, Insurance & Real Estate	2,581	3,190	609	3	4	1
Services	18,395	22,322	3,927	24	27	3
Area	77,248	83,025	5,777	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 Sioux City 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 Sioux City 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 any 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 that incomes were not as high as the Iowa average in either 1960 or 1967. On the other hand the increase in three counties was well above the Iowa average per worker increase. The highest levels of income within the area appear to be in the more industrialized counties of Woodbury and Crawford. 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.

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

County	1959*	1967	Change
Cherokee	\$ 3,340	\$ 4,668	\$ 1,328
Crawford	2,852	4,912	2,060
Ida	3,216	4,596	1,380
Monona	2,888	3,172	284
Plymouth	2,928	3,640	712
Sac	3,108	3,620	512
Woodbury	4,244	4,804	560
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 Northwest 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 11,796. Of these, 93 percent or 10,996 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, 732 of them were 500 acres or over in size. This was 7 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 12 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 88 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 in much of the area.

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

Characteristic	Area Number	Area Percent	Iowa Percent
500 acres or over in size	732	7	6
Hiring 150 days of labor or more	1,318	12	10
Operator working off farm 100 days or more	1,059	10	12
Operator 65 years of age or older	749	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 22 percent of all farms, but only 6 percent of the total farmland was included in farms of this size group. At the other extreme, 36 percent of the farms were 260 acres or over and 60 percent of the farmland was in farms of this group. By 1970 it is likely that at least 70 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 large 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	22	6
140-179 acres	19	13
180-259 acres	23	21
260 acres and over	36	60

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 (20 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 50 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	20	48
\$10,000 to \$29,999	50	43
Less than \$10,000	30	9

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 11 million bushels for a 16 percent increase. Soybean production was up 123 percent, fed cattle up 60 percent, beef cow numbers up 58 percent and swine up 13 percent. Lamb feeding and raising were both down, but these are minor enterprises for this area. The decline in milk cows of 30 percent is the only decline in a major farm enterprise. If an index of overall farm output for Iowa areas were available, it seems likely that total output of the Sioux City area would show an increase of more than 15 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 the area has been concentrating particularly on the beef raising and feeding operations as an expansion possibility. Swine numbers are increasing more rapidly than the state average, but dairy cow numbers are decreasing more rapidly. The failure to increase corn production as rapidly as the state may be caused at least partially by the lower level of rainfall in this area.

Table 8. Agricultural Output

Enterprise	Unit	1958-60	1965-67	Change	Percent Change	
					Area	Iowa
Corn	1000 bu	66,278	76,835	10,557	15.9	23.9
Soybeans	1000 bu	4,812	10,746	5,934	123.3	100.2
Fed cattle	1000 head	358	572	214	59.8	44.9
Beef cows	1000 head	59	93	34	57.6	39.2
Pigs born	1000 head	1,690	1,905	215	12.7	2.4
Fed lambs	1000 head	162	101	-61	-37.7	-27.4
Lambs born	1000 head	50	38	-12	-24.0	-27.7
Milk cows	1000 head	56	39	-17	-30.4	-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 largest export and related employment increase of the 1960-1967 period was the over 3,000 additional employment in manufacturing export plus related employment. However, recent manufacturing growth in the area is relatively minor in comparison to central and eastern Iowa areas. The primary source of this difference is the lack of industrial growth in the central city during much of the 1960's. By 1967, however, Sioux City had recovered considerably from the low point in 1965. It is likely that the city will again develop a manufacturing growth potential that can absorb much of the surplus labor produced in the area.

The amount of manufacturing growth that has occurred in the area has probably eased the strains of agricultural adjustment. The larger towns of the area have been helped to maintain or moderately increase their populations. A number of smaller towns have benefited also, 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
Cherokee	483	968	485	4	28	7
Crawford	278	1,067	789	2	47	8
Ida	208	397	189	2	11	3
Monona	174	141	-33	1	-2	1
Plymouth	466	777	311	4	18	6
Sac	766	926	160	6	9	7
Woodbury	9,773	9,590	-183	81	-11	68
Area	12,148	13,866	1,718			

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 move toward dispersion of manufacturing activity over the area. In 1960, only one of the outlying counties had more than 500 manufacturing employees. By 1967, 4 of the 6 counties were above 500 in manufacturing employment, and 3 of these had passed the 900 employment level. Woodbury County, of course, still far out-numbers the others with over 80 percent of the area's manufacturing in 1960 and just under 70 percent in 1967. Crawford County had the largest increase of the area during 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 268 individual plants in the area in 1963, 195 had less than 20 employees. On the other hand four plants had between 500 and 999 employees.

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 88 plants including two of the four largest plants and almost two-thirds of the plants with more than 100 workers.

A second category is "Processing of other local resources." This category included 28 plants, but 23 of these were in the smallest size category with less than 20 employees each. Almost all of the plants in this category in the Sioux City area were engaged in concrete mixing or forming. A few of the others were engaged in operations involving wood products. The Sioux City area generally lacks sizable concentrations of trees, 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 17 such plants in 1963 with only 3 having more than 50 employees each. Undoubtedly the number of small fertilizer plants has 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 50 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 187 plants in 1963.

The other 81 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 specialized pumps, sporting and athletic goods, signs and displays, metal stampings, boiler shop products, construction machinery, electronic components and at least 30 other kinds of products.

In many areas of Iowa 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 or larger size and many other have stayed small but profitable.

Table 10. Area Manufacturing by Size of Plant and Type of Product - 1963
Number of Plants with Employment of -

Type of Mfg. Activity	1- 19	20- 49	50- 99	100- 249	250- 499	500- 999	All Plants
All Types	195	36	17	12	4	4	268
Processing of Ag. Products	53	15	7	8	3	2	88
Processing of other local Resources	23	5	0	0	0	0	28
Production of non-feed inputs for Ag.	12	2	3	0	0	0	17
Area Newspapers and Printing	50	3	0	0	1	0	54
Total attached Mfg.	138	25	10	8	4	2	187
Non-attached Mfg.	57	11	7	4	0	2	81

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 to some extent in the Sioux City area, but are less pronounced as compared to other large city areas. There has thus been no 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 Sioux City area was noticeably below the state average. The highest county hourly average wage was also below the comparable state average level. In all 3 comparisons the Woodbury County levels were below the state averages. The state highs are all in heavily industrialized counties, which typically offer a large, stable, skilled labor supply to the industrialist.

The less industrialized parts of the state, including most of the Sioux City 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
Area Average	\$ 6,304	\$ 5,026	\$ 2.41
Iowa Average	7,008	5,415	2.68
Woodbury County	6,706	5,199	2.52
Highest of Other Area Counties	7,533	6,252	2.43
Lowest of Area Counties	4,079	3,421	1.64
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 all 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 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 \$258 million in 1963 prices. By 1963 the sales had increased to \$266 million for a 3 percent gain. This was a period of moderate percentage gain for Cherokee, Crawford and Ida counties; slight gain for Monona and Plymouth counties and losses for Sac and Woodbury counties.

The measure of recurring type retail sales per capita gives a general measure 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 Sioux City area in 1963, Woodbury County had the highest sales per capita indicating that Sioux City was serving as an area shopping center for many items.

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 gains in employment were made in Cherokee, Crawford, Plymouth and Woodbury counties. It is possible that some larger outlying towns are gaining strength as shopping centers.

Table 12. Recurring Type Retail Sales

County	1954*	1963	Change	Percent Change	Per Capita 1963
Thousands of dollars					
Cherokee	19,834	22,696	2,862	14.4	\$1,220
Crawford	18,274	21,611	3,337	18.3	1,164
Ida	9,300	10,766	1,466	15.8	1,048
Monona	13,914	15,076	1,162	8.4	1,083
Plymouth	26,283	28,593	2,310	8.8	1,196
Sac	17,681	16,158	-1,523	-8.6	950
Woodbury	152,704	151,429	-1,275	-0.8	1,404
Total Area	257,990	266,329	8,339	3.2	1,268
Area less Woodbury	105,286	114,900	9,614	9.1	1,124
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
Cherokee	1,322	1,580	258	8	19	8
Crawford	1,112	1,382	270	6	20	7
Ida	619	665	46	4	3	4
Monona	848	869	21	5	2	5
Plymouth	1,531	1,800	269	9	20	10
Sac	1,037	1,145	108	6	8	6
Woodbury	11,146	11,501	355	62	28	60
Area	17,615	18,942	1,327	100	100	100

Population Changes

The population of the Sioux City area increased rapidly between 1880 and 1920 and probably reached its highest point shortly before 1940. Table 14 gives information on population for counties and the area for several points in time between 1880 and 1967. Only Woodbury County has had continual population growth, but the growth has been very slow since 1940. Cherokee and Plymouth counties are in about the same situation except that they have had some decreases in the past. Ida, Monona and Sac have each been declining in population since 1940, at least until very recently.

The contrasting changes among counties suggest that the overall stability of area population is hiding a number of within-area changes. One change is illustrated by looking at the 15 largest cities and towns of the area in 1920. At the time, Sioux City had 71,000 people and the other 14 combined had 31,000 people. By 1967 Sioux City had about 89,000 people and the other towns had 41,000. An important shift from open-country to city and town residence had occurred. The smallest of the 17 towns had 1,000 residents in 1920 and about 900 in 1967. Ten of the 14 towns increased in population between 1920 and 1967, but only Denison gained more than 50 percent. The combined 1967 population of the four largest towns was 54 percent larger than their combined 1920 population.

The smaller (less than 1,000 population) towns have produced a mixed pattern. Some have grown but many 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 hold up the total population of many small towns 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
Cherokee	8,240	16,570	17,760	19,258	19,052	18,598	19,063
Crawford	12,413	21,685	20,614	20,538	19,741	18,569	19,678
Ida	4,382	12,327	11,689	11,047	10,697	10,269	10,380
Monona	9,055	17,980	17,125	18,238	16,303	13,916	12,629
Plymouth	8,566	22,209	23,584	23,502	23,252	23,906	24,156
Sac	8,774	17,639	17,500	17,639	17,518	17,007	16,469
Woodbury	14,996	54,610	92,171	103,627	103,917	107,849	110,348
Area	66,426	163,020	200,443	213,849	210,480	210,114	212,723
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	4.1	7.3	8.3	8.4	8.0	7.6	7.4

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. Many Iowa areas have an example of a county with a large population loss in percentage terms between 1960-1967 and simultaneously a large gain in average annual earnings of private wage and salary workers. Where this occurs it can be described as good progress measured in terms of increased income per person. This is 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. Monona 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 Sioux City or some other location within one hour's driving distance. The situation will not be nearly so improved if Sioux City and other 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 1950 although some had a higher number in 1960. These are the children who, upon entering school between 1950 and 1955, 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 most counties of the area. For some counties it may be lower than at any time since the pre-1900 settlement immigration was completed. 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 for all but Woodbury and Crawford counties. 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 all but Monona County 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 serious in the Sioux City area because of the numbers of low enrollment districts already in existence.

Table 15. The Young and the Old - Sioux City Area

County	Age Range					
	<u>Young</u>		<u>Old</u>			
Year	Age 0-4	Age 5-9	Age 10-14	Age 65-69	Age 70-74	Age 74 +
<u>Cherokee</u>						
1940	1404	1442	1641	646	484	577
1950	2045	1561	1325	800	568	773
1960	1938	2054	1756	890	714	843
1970	1414	1804	2101	774	646	989
<u>Crawford</u>						
1940	1750	1770	1922	599	416	509
1950	2223	1861	1634	761	512	606
1960	1973	1999	1921	858	684	829
1970	1646	2195	2225	801	666	996
<u>Ida</u>						
1940	850	871	1012	306	255	302
1950	1166	892	788	393	283	366
1960	1023	1103	1026	579	404	481
1970	638	822	1072	440	424	682
<u>Monona</u>						
1940	1732	1702	1799	589	414	440
1950	1759	1611	1450	606	471	591
1960	1362	1502	1331	667	516	745
1970	737	1066	1181	591	532	809
<u>Plymouth</u>						
1940	1959	2033	2191	683	497	624
1950	2702	2203	1817	810	591	689
1960	2822	2767	2434	1039	800	912
1970	1953	2525	2970	919	765	1175

Table 15 - Cont'd.

<u>County</u>	<u>Age Range</u>					
	<u>Young</u>			<u>Old</u>		
<u>Year</u>	Age 0-4	Age 5-9	Age 10-14	Age 65-69	Age 70-74	Age 74 +
<u>Sac</u>						
1940	1448	1509	1632	515	426	451
1950	1903	1633	1414	721	527	590
1960	1819	1871	1704	787	632	899
1970	1060	1438	1750	777	632	1075
<u>Woodbury</u>						
1940	7845	7981	8815	3122	2109	2358
1950	11373	8782	7234	3711	2589	3210
1960	12291	11941	9918	4655	3442	4257
1970	9477	12108	13079	4398	3681	5535

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 Sioux City area in 1967. The districts are also shaded to indicate enrollment levels. One district in the area had less than 300 pupils in kindergarten through 12th grade. Eleven districts had an enrollment between 300 and 500 pupils, 8 between 500 and 700 pupils and 20 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.

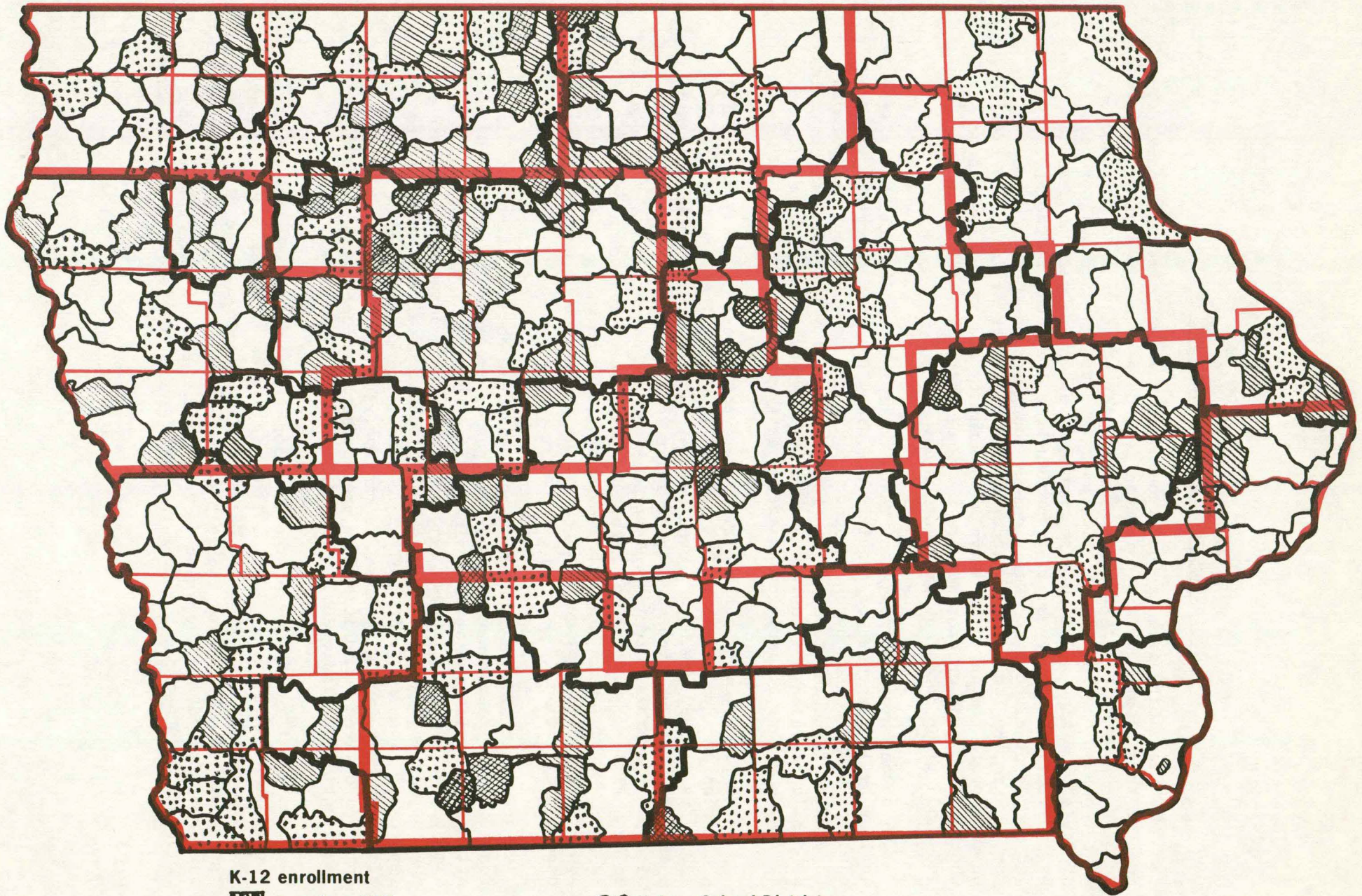
As people of the Sioux City area observe and study these patterns of cost and performance and the declining numbers of students in the future, they are likely to have to consider additional school consolidations. It is likely, also, that the 20 school districts which had over 700 pupils in 1967 will be the focal points of most of the reconsolidations.

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.

Information and estimation of numbers by 5 year groups for the 15-64 age population is not presented. It is felt that the available 1970 estimates for this group of people may be unreliable because of unpredictable migration movements. In addition, no particular age group of the working age population creates any special demand on community institutions. Therefore, precise knowledge about changes in age distribution of this group is not as necessary as it is for the young and old population.

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 Sioux City 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 group 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. The absence of mineral deposits prevents any successful attempt at mining operations. The rolling topography of most of the area almost prohibits continuous row-crop farming on a large scale. These are obvious physical 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 those 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 of 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 an analysis of the seven counties in relation to a functional economic area pattern. The Sioux City area of Iowa, which we have been describing, and including adjoining parts of Nebraska and South Dakota 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 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
Expansion of satellite towns			*
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 all counties into an area govt.			*
Stop all shopping center development	*		
Establish more multi-govt. 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			*

The Sioux City area is lacking in the development of the satellite towns except in the northern third of the area. There the growth of Cherokee and LeMars and the South Dakota towns of Vermillion and Yankton is comparable to satellite town growth of central and eastern Iowa areas. However, nowhere else in the 50 mile travel radius of Sioux City has there been much more than the maintenance of quite small farm-oriented towns. We do not here include either Sac or Crawford counties in the discussion since both lie mostly beyond the 50 mile radius. In the Nebraska part of the Sioux City territory, the nearest appreciable growth center has been Norwalk which is also well beyond the 50 mile travel radius.

In the Iowa part of the area there appears to be room for development of at least two 5,000 to 10,000 population towns in the arc described by the Onawa, Mapleton, Ida Grove, Holstein, Correctionville and Kingsley locations. None of these towns can grow to over-5,000 size by depending on agricultural trade alone. Industrial developments would have to be the main source of growth. The new industries must be of a type that would be attracted to small towns because of available labor supply in the countryside or other reasons. Generally, they must be of a type that does not require large amounts of water or electricity or other services in volumes that a small community is not prepared to supply.

A rapid expansion of one or two of the previously named towns would require more capital for industry inducement and community services expansion than is likely to be available in any of the individual towns. The capital base of large parts of the area, including the central city, may be needed to finance such growth ventures. However, there is as yet little precedent for this type of joint financing and little legal structure to permit it when bond issues are required.* As a result, this discussion of potential opportunity for satellite town growth is largely speculation at this stage. It serves only to broaden the thinking of community leaders toward future possibilities for development in the outlying parts of the area.

The importance of the large central city should not be forgotten. 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 were each located in a different city.

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

To some extent, the people of the Sioux City 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.

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