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AN ECONOMIC BASE STUDY OF IOWA'S MIDCREST AREA

Introduction

This is a report of the economic activity and associated changes in an eight county area in southern Iowa. The counties included are Adair, Madison, Adams, Union, Clark, Taylor, Ringgold and Decatur.

This area is more rural than the Iowa average in the sense that a higher proportion of people live in the open country. This result is not produced from a higher density of open country people but, rather, from the lack of a major city and from the relatively small size of the towns of the area. Creston, with somewhat more than 8,000 people, is the largest population center of the area. No other town is much, if any, above 3,500 population. The area will increasingly tend to use Creston as a central city for those services which can be furnished at only one place in the area. The nearness of Des Moines tends to dampen Midcrest cohesiveness by pulling many residents away from the Creston center for both job-hunting and shopping purposes. On the other hand, the existence of large job centers within daily driving range enables many out-commuters to live in the area and help its economy.

The area had a total population slightly over 81,000 in 1960. The estimated population in 1967 was just over 77,000. In the 10 years before 1960, the area had declined about 12,500 in population.

Total employment in the area has been increasing by less 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 slowly.

Within the area the most rural communities are steadily declining in both employment and population while Creston and some larger towns 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."

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.

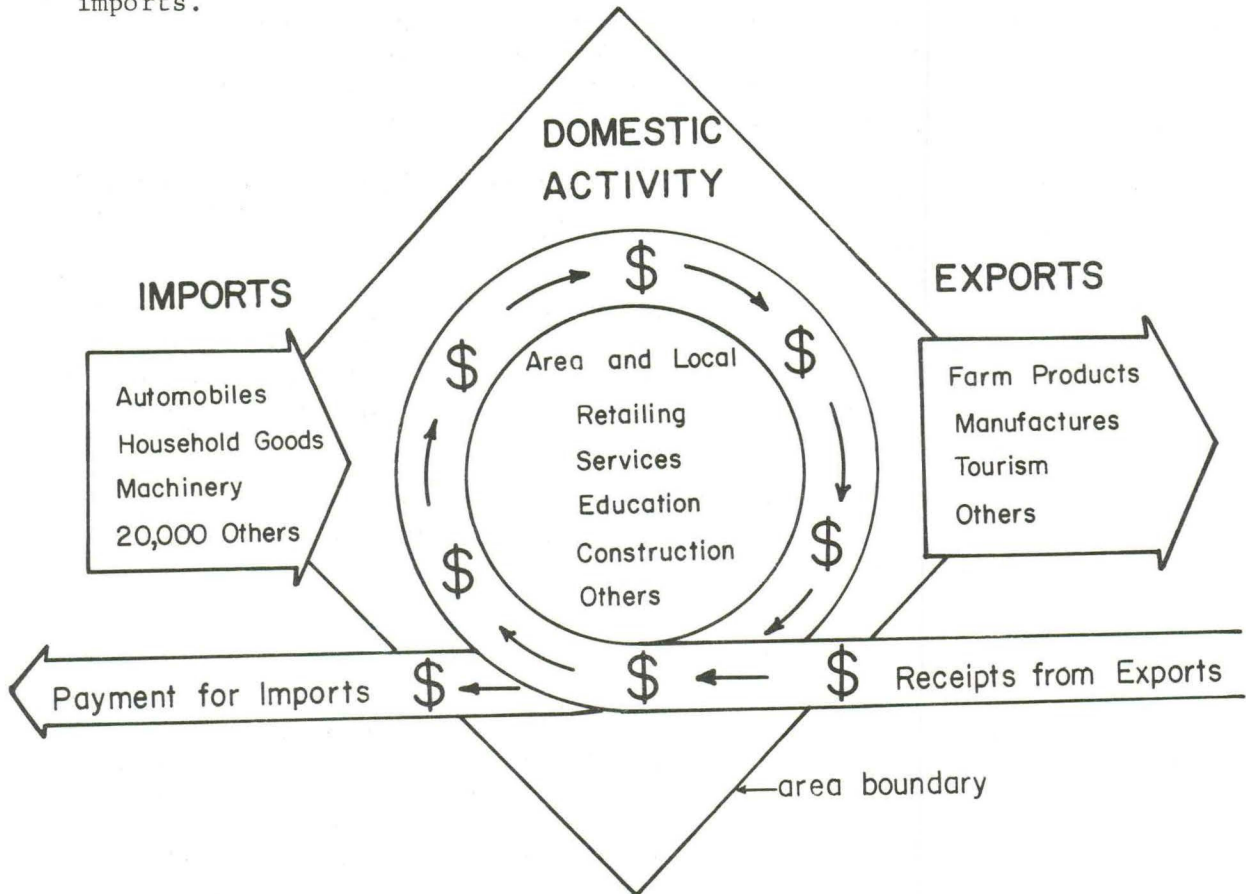


Figure 1. Export Domestic and Import Relationships.

The Changing Base

Table 1 provides employment comparison information for the Midcrest 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 dominant export sector in this area. It provided about three-fourths of the area's export employment in 1960 and about three-fifths of the export employment in 1967. Between these years the export employment of agriculture declined by 2,517. 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 771 employees during the 1960-1967 period. In percentage terms, manufacturing export increased from six percent of total export in 1960 to 12 percent in 1967.

The other sectors each provide less than 10 percent of the total export employment, but the recent increases in services export have been almost as large as for manufacturing. Net out-commuting, (the excess of out-commuters over in-commuters) is of growing importance to the area and has been encouraged by the interstate highways in the area.

In total, export employment declined by 952 workers between 1960 and 1967. In 1960 there were about 94 domestic workers for every 100 export workers. If the same ratio had existed also in 1967, total employment would have declined by 1,847 (952 export workers plus 895 domestic workers). Actually, an increase of 1,320 workers occurred. The export-domestic ratio had shifted upward (to 109 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 16,613 rather than 15,447 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, 10,910 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	11,048	8,531	-2,517	10,910	11,099	189
Construction and Mining export	183	361	178	150	291	141
Manufacturing export	883	1,654	771	672	1,281	609
Transportation, Communications and Utilities export	486	289	-197	362	224	-138
Wholesale and Retail export	993	993	0	926	913	-13
Finance, Insurance & Real Estate export	112	124	12	84	91	7
Services export	786	1,356	570	586	981	395
Out-commuters (net)	750	981	231	437	567	130
Area	15,241	14,289	-952	14,127	15,447	1,320

In total, 10,910 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 11,048 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 189 in the domestic employment related to it. The ratio of 11,099 domestic workers to 8,531 export workers that existed for agriculture in 1967 is equivalent to 130 domestic workers for every 100 export workers. This is up sharply from the 99 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	21,958	19,630	-2,328
Construction and Mining export	333	652	319
Manufacturing export	1,555	2,935	1,380
Transportation, Communications and Utilities export	848	513	-335
Wholesale and Retail export	1,919	1,906	-13
Finance, Insurance and Real Estate export	196	215	19
Services export	1,372	2,337	965
Out-commuters (Net)	1,187	1,548	361
Area	29,368	29,736	368

The domestic employment related to manufacturing showed the largest rise (609 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 19,630 jobs when we count both the export employment of agriculture and the domestic employment related to it. This was 66 percent of the total employment of the area. Manufacturing export was responsible for 10 percent of the total employment, and services export provided for 8 percent of the total. In 1960 the comparable percentages were 75 percent for agricultural export, 5 percent for manufacturing and 5 percent for services.

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 2,724 during the seven year period and that the sector slipped from 40 percent of total employment in 1960 to 30 percent in 1967. Corresponding increases were registered by manufacturing and services with jumps of 3 and 4 percent of the total and by wholesale and retail with a 2 percent jump.

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	Employment			Percent of Total		
	1960	1967	Change	1960	1967	Change
Agriculture	11,761	9,037	-2,724	40	30	-10
Construction & Mining	1,633	1,907	274	6	6	0
Manufacturing	1,307	2,087	780	4	7	3
Transportation, Communications, & Utilities	1,518	1,354	-164	5	5	0
Wholesale and Retail	5,338	5,898	560	18	20	2
Finance, Insurance & Real Estate	674	806	132	2	3	1
Services	6,387	7,666	1,279	22	26	4
Out-commuters (net)	750	981	231	3	3	0
Area	29,368	29,736	368	100	100	0

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 Midcrest 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 Midcrest 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 several counties was above the Iowa average per worker increase. The highest level of income within the area appears to be in the more industrialized Union County. Generally, table 4 would indicate that the area made progress in improving productivity and earnings per worker during the time that a slight 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
Adair	\$2996	\$3744	\$ 748
Adams	2272	3272	1000
Clarke	2764	3764	1000
Decatur	2608	3056	448
Madison	3080	3252	172
Ringgold	2628	3120	492
Taylor	2660	2812	152
Union	2896	4260	1364
Iowa Average	4280	5028	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 Midcrest 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 9,702. Of these, 84 percent or 8,187 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, 865 of them were 500 acres or over in size. This was 10 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 6 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 94 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 more 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	865	10	6
Hiring 150 days of labor or more	524	6	10
Operator working off farm 100 days or more	960	10	12
Operator 65 years of age or older	907	9	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 30 percent of all farms, but only 8 percent of the total farmland was included in farms of this size group. At the other extreme, 38 percent of the farms were 260 acres or over and 67 percent of the farmland was in farms of this group. By 1970 it is likely that at least 75 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	30	8
140-179 acres	13	8
180-259 acres	19	17
260 acres and over	38	67

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 (5 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 39 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	5	20
\$10,000 to \$29,999	39	54
Less Than \$10,000	56	26

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 over 5 million bushels for a 19 percent increase. Soybean production was up 89 percent, fed cattle up 53 percent, beef cow numbers up 48 percent and swine up 11 percent. Lamb feeding and raising were both down, but these are minor enterprises for this area. The decline in milk cows of 50 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 Midcrest 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 Midcrest has been concentrating particularly on the beef and swine operations as an expansion possibility. Both are increasing more rapidly than in the state, but dairy cow numbers are decreasing more rapidly. The failure to increase corn and soybean production as rapidly as the state may be caused at least partially by the lower level of soil quality in both fertility and topography characteristics.

Table 8. Agricultural Output

Enterprise	Unit	1958-60	1965-67	Change	Percent Change	
					Area	Iowa
Corn	1000 bu	27,133	32,332	5,199	19.2	23.9
Soybeans	1000 bu	3,213	6,061	2,848	88.6	100.2
Fed cattle	1000 head	58	89	31	53.4	44.9
Beef cows	1000 head	134	199	65	48.5	39.2
Pigs born	1000 head	985	1,089	104	10.6	2.4
Fed lambs	1000 head	54	38	-16	-29.6	-27.4
Lambs born	1000 head	76	50	-26	-34.2	-27.7
Milk cows	1000 head	48	24	-24	-50.0	-23.8

Source: Iowa Assessors Annual Farm Census, Adjusted

Analysis by Gene Futrell, Marvin Skadberg, Allan Rahn, Extension Economists.

Manufacturing

Manufacturing is a small sector of recent growth in the area. One of the helpful export and related employment increases of the 1960-1967 period was the almost 1,400 additional employment in manufacturing export plus related employment. However, manufacturing in the Midcrest area is still relatively minor in comparison to central and eastern Iowa areas or the Sioux City area. The primary source of this difference is the lack of a large industrial city with some very large plants and a multitude of smaller ones. As long as the area lacks an employment center comparable to Fort Dodge or Mason City or Sioux City 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 somewhat the strains of agricultural adjustment. Creston and some towns of the area have been helped to maintain or moderately increase their populations. A number of smaller towns have benefited to a smaller degree, 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
Adair	115	130	15	9	2	6
Adams	163	153	-10	12	-1	7
Clarke	268	244	-24	21	-3	12
Decatur	163	243	80	12	10	12
Madison	75	99	24	6	3	5
Ringgold	86	76	-10	7	-1	4
Taylor	82	82	0	6	0	4
Union	355	1060	705	27	90	50
Area	1307	2087	780			

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 increasing concentration of manufacturing activity in Union County. In 1960 five of the eight counties had more than 100 manufacturing jobs, but none had over 400. By 1967 Union County had passed the 1000 manufacturing job level, but no other county had yet reached 250. Typically, a central city vicinity will have 50 percent or more of the manufacturing jobs in its multi-county area. From 10 to 20 percent of the central city manufacturing jobs are usually filled by persons who are commuting from nearby counties, and this situation probably also exists in the Midcrest area.

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 55 individual plants in the area in 1963, 47 had less than 20 employees. Only one plant had more than 100 employees, but at least two more of larger size have been established since 1963.

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 9 plants including three of the five plants with employment of 20 to 49 workers.

A second category is "Processing of other local resources." This category also included 9 plants, but 11 of these were in the smallest size category with less than 20 employees each. Almost all of the plants in this category in the Midcrest area were engaged in concrete mixing or forming. Others were engaged in operations involving wood products. The Midcrest 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 only 4 such plants in 1963 with only 1 having more than 20 employees each. 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 15 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 service the residents and advertisers of the area. In total, the four categories included 41 plants in 1963.

The other 14 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, women's clothing, signs and displays, metal stampings, food products, machinery and several 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 others have stayed small but profitable.

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

Type of Mfg. Activity	Number of Plants With Employment Of -						
	1- 19	20- 49	50- 99	100- 249	250- 499	500- 999	All Plants
All Types	47	5	2	1	0	0	55
Processing of Ag. Products	9	3	0	0	0	0	12
Processing of other Local Resources	9	0	0	0	0	0	9
Production of non-feed inputs for Ag.	3	1	0	0	0	0	4
Area Newspapers and Printing	15	1	0	0	0	0	16
Total attached Mfg.	36	5	0	0	0	0	41
Non-attached Mfg.	11	0	2	1	0	0	14

Source: Manufacturing Census

Non-attached plants owned and operated by outside interest 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 Midcrest area, but are much less pronounced as compared to 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 Midcrest area was noticeably below the state average. The highest county levels in the area were each about 20 percent below the comparable state average levels. Production workers' wages were 40 percent below the comparable high county levels for the state. 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 Midcrest 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
Union County	5,054	3,746	1.77
Highest of Other Area Counties	6,000	3,744	2.01
Lowest of Area Counties	3,026	2,756	1.44
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 multitude of 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. This latter tendency may not yet have appeared in the Midcrest area because it has no large 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 \$74 million in 1963 prices. By 1963 the sales had increased to \$85 million for a 15 percent gain. This was a period of major percentage gain for Decatur, Ringgold, Taylor, and Union counties; moderate gain for Adair and Madison counties; and slight losses for Adams and Clarke counties.

The measure of recurring type retail sales per capita gives a general feeling 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 Midcrest area in 1963, Union County had the highest sales per capita indicating that Creston 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 Madison and Clarke 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. Some gain in employment was made in all counties except Adams.

Table 12. Recurring Type Retail Sales

County	1954*	1963	Change	Percent Change	Per Capita 1963
Thousands of dollars					
Adair	8,851	9,259	408	4.6	850
Adams	7,032	6,545	-487	-6.9	876
Clarke	9,153	8,908	-245	-2.7	1,083
Decatur	7,904	10,376	2,472	31.3	985
Madison	13,834	15,347	1,513	10.9	1,248
Ringgold	5,381	7,657	2,276	42.3	968
Taylor	6,588	8,866	2,278	34.6	862
Union	15,191	18,109	2,918	19.2	1,321
Total Area	73,934	85,067	11,133	15.1	1,046
Area less Union	58,743	66,958	8,215	14.0	990
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
Adair	788	875	87	15	16	15
Adams	480	447	-33	9	-6	8
Clarke	587	639	52	11	9	11
Decatur	608	678	70	11	12	11
Madison	700	760	60	13	11	13
Ringgold	403	479	76	8	14	8
Taylor	629	768	139	12	25	13
Union	1,143	1,252	109	21	19	21
Area	5,338	5,898	560			

Population Changes

The population of the Midcrest area reached its highest point shortly before 1900 and has been declining steadily since that time. Table 14 gives information on population for counties and the area for several points in time between 1880 and 1967. After 1900, all counties show a continual decrease until 1960. After 1960, Union County shows a gain, and Adair County appears to have leveled off. Adams County has had the largest percentage loss and the largest absolute loss of population in recent years. Ringgold and Taylor counties have also had heavy losses, but Decatur County has almost stopped the population decline, apparently because of employment expansion in both Lamoni and Leon.

The part of Iowa represented by the Midcrest area has always been sparsely settled in comparison with areas to the north and east. As a consequence, the number of towns with growth potential has also been smaller. In 1920 there were ten towns with 1,000 or more population. By 1967 the same towns were still all above 1,000 population, but no additional towns had been added to the list. The ten towns had grown from a combined population of about 26,000 in 1920 to almost 29,000 in 1967. However, this amount of growth is very low in comparison to the changes in the leading towns of some other rural areas of Iowa. The areas which have been able to maintain a nearly constant total population have done this by producing a growth of 40 percent or more over the 1920-67 period in the combined total of the 10 to 15 largest towns.

The smaller (less than 1,000 population) towns have produced a consistently declining pattern, with only two or three exceptions in this area. 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. In the 1970's the area will have a higher proportion of persons over 64 years of age than ever 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 from declining more rapidly 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 any larger towns that are growing in numbers of jobs offered.

Table 14. Population Change

County	1880	1900	1920	1940	1950	1960	1967
Adair	11,667	16,192	14,259	13,196	12,292	10,893	10,850
Adams	11,888	13,601	10,521	10,156	8,753	7,468	6,199
Clarke	11,513	12,440	10,506	10,233	9,369	8,222	7,505
Decatur	15,336	18,115	16,566	14,012	12,601	10,539	10,156
Madison	17,224	17,710	15,020	14,525	13,131	12,295	11,536
Ringgold	12,085	15,325	12,919	11,137	9,528	7,910	6,706
Taylor	15,635	18,784	15,514	14,258	12,420	10,288	9,205
Union	14,980	19,928	17,268	16,280	15,651	13,712	14,908
Area	110,328	132,095	112,573	103,797	93,745	81,327	77,065
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	6.8	5.9	4.7	4.1	3.6	2.9	2.7

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 Adams County had the largest population loss in percentage terms between 1960-1967 and simultaneously (see table 4) had one of the largest gains in average annual earnings of private wage and salary workers. It might be said that considering the alternatives available, Adams County had good 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. Adams 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 Creston or some other location within one hour's driving distance. The situation will not be nearly so improved if Creston 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 1940. 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 every county. For most counties it will 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. 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 includes children from the peak of the "baby boom" and is therefore not declining as rapidly in comparison to 1960 as the younger age groups. In many other Iowa areas this group is larger in 1970 than in 1960, but in Midcrest out-migration has reduced this group also.

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 particularly serious in Midcrest because of the numbers of low enrollment districts already in existence.

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

Year	Age Range					
	Young			Old		
	Age 0-4	Age 5-9	Age 10-14	Age 65-69	Age 70-74	Age 74 +
<u>Adair</u>						
1940	1128	1158	1144	508	354	407
1950	1193	1132	1053	519	359	501
1960	998	1046	997	531	490	599
1970	587	901	1032	524	397	695
<u>Adams</u>						
1940	865	841	909	366	275	291
1950	922	860	699	367	296	367
1960	697	763	699	365	305	443
1970	360	464	539	345	267	450
<u>Clarke</u>						
1940	863	873	931	423	342	378
1950	893	813	738	462	340	479
1960	702	763	750	416	387	577
1970	468	544	620	402	347	596
<u>Decatur</u>						
1940	1181	1237	1274	606	476	577
1950	1185	1160	1007	539	482	705
1960	818	895	941	537	450	765
1970	538	676	793	510	444	752
<u>Madison</u>						
1940	1280	1207	1245	571	409	525
1950	1287	1215	1125	552	470	639
1960	1159	1195	1172	661	515	768
1970	733	891	1068	577	509	887

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>Ringgold</u>						
1940	969	966	1001	478	364	371
1950	941	831	825	439	378	479
1960	681	757	800	393	337	518
1970	337	416	520	385	325	483
<u>Taylor</u>						
1940	1160	1148	1269	603	493	547
1950	1123	1146	961	640	526	725
1960	837	915	966	615	514	781
1970	520	572	727	473	458	753
<u>Union</u>						
1940	1251	1203	1301	753	552	584
1950	1504	1212	1166	756	586	842
1960	1258	1259	1268	790	642	935
1970	1012	1338	1503	717	634	996

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 Midcrest area in 1967. The districts are also shaded to indicate enrollment levels. Four districts in the area had less than 300 pupils in kindergarten through 12th grade. Four districts had an enrollment between 300 and 500 pupils, seven between 500 and 700 pupils and twelve each had enrollment of more than 700 pupils.

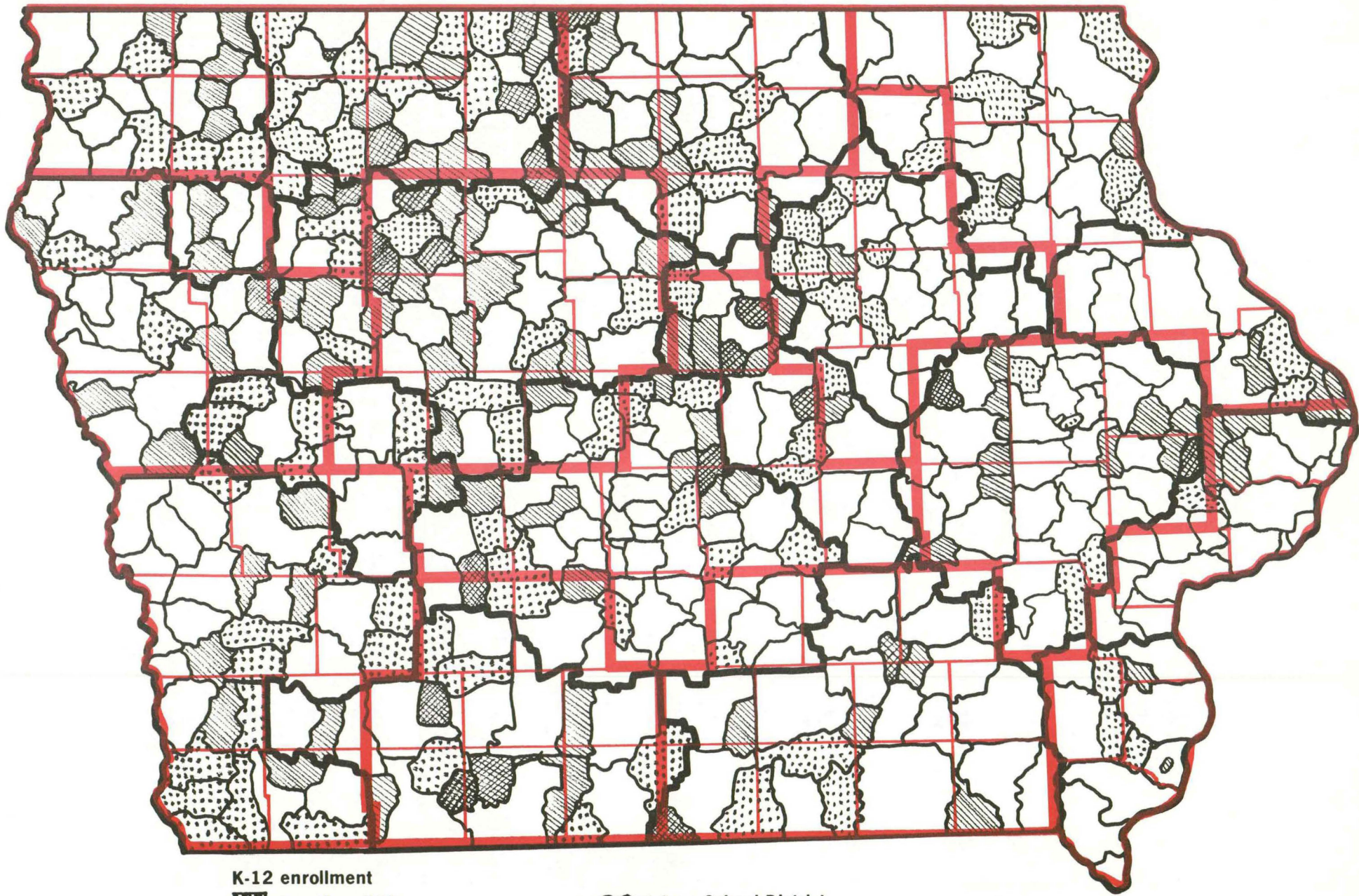
The too-small school district can be questioned from the standpoints of cost of operation per student and adequacy of performance, particularly at the high school level. If the teaching staff is specialized enough to raise performance levels, the cost of operation per student becomes very high. If cost 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 Midcrest 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 twelve school districts which had over 700 pupils in 1967 will be the focal points of most of the reconsolidations, although 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 several counties are 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 almost as many people in these ages as there were in 1960, which was the high year up to that time for several counties.

This build-up of the aging population indicates an increasing need for hospital, convalescent and nursing home facilities in some counties. However, other counties have already passed the peak in numbers of old people. Careful planning is needed in these areas to avoid over-building for the future.

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 Midcrest 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 lack of generally mountainous terrain for skiing inhibits the development of most of Midcrest as an all-season recreational area. 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 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 payoff 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 Southwest Iowa, including Midcrest, and much of adjoining Northwestern Missouri 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 large 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 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 Southwest Iowa-Northwest Missouri territory is bounded by the cities of Des Moines and Ottumwa in Iowa, Omaha, Nebraska and St. Joseph, Missouri. Almost all people within one-hour driving time of any of these named cities go to that city for some services. However, a large territory remains within which people are more than one-hour driving time from a central city and in which a non-typical pattern of growth has occurred.

What we find is a group of small cities or large towns somewhat uniformly spaced over this rural territory. Included are Maryville and Chillicothe in Missouri, and Creston in Iowa. All three are in the 7,500 to 10,000 population size class. They might all be characterized as "embryo" central cities. Each has a sufficient "geographical" territory to be free of intense competition from other central cities.

The Northeast corner of the Midcrest area is well within the territory of Des Moines and will be influenced by its growth. The uncertainty about future development patterns exists primarily for the part of the area that is at least 40 miles from Des Moines and possibly also for the counties of Montgomery and Page to the west of Midcrest.

The pattern of development of the past appears to be one of some scattering of the activities. Manufacturing activity, post-high school education, recreational activity, health services and others all give some impression of being scattered rather than concentrated in location. While this is not typical development, no outsider should say that it is wrong or unwise. The people of the area will ultimately give the answer by their behavior in adequately supporting or not supporting these activities in their scattered locations.

On the other hand, there are some things that probably cannot be done by a pattern of slow uniform growth of small cities with no larger central city. A high-capacity multi-purpose airport needed for access to many of the markets of the future is barely feasible for a city of 25,000. It is impossible, without heavy tax support, for any city of less than 15,000.

It is unlikely also that a prospective employer of 500 or more skilled workers would be highly attracted to any city of the area if the major regional services for that area were not all located at one place. He would, other things being equal, favor another area where the community college and vocational school, the major hospital facilities, the largest airport, and the regional government services were all located in the central city.

To some extent, the people of Midcrest still must choose whether they will work toward the development of a central city or whether they will continue to develop an area with several small centers. 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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