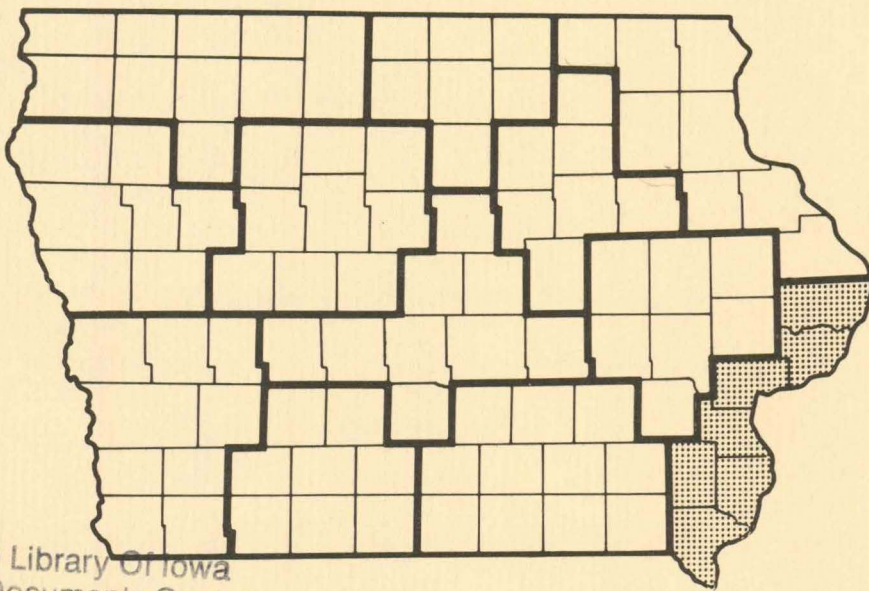


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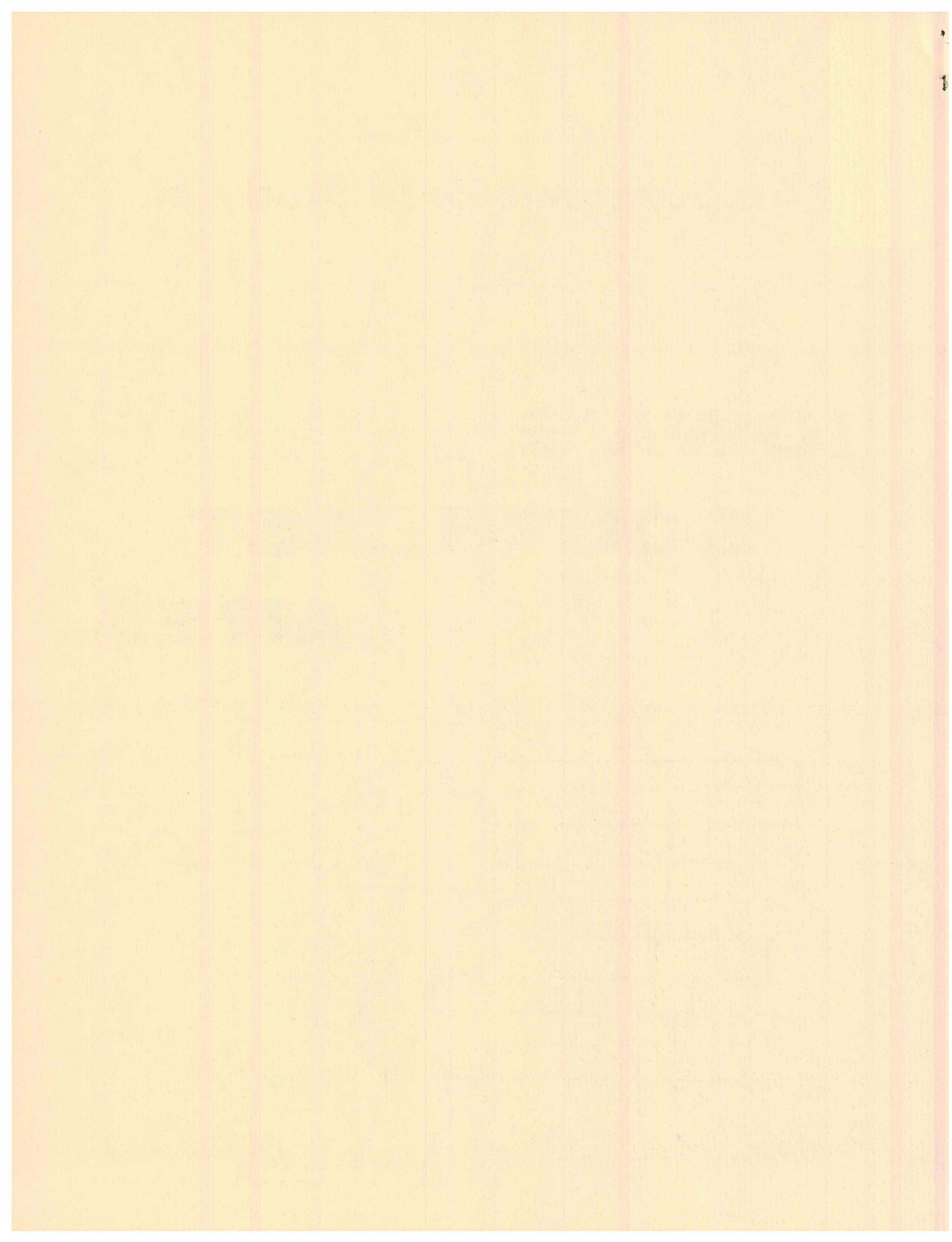
An Economic Base Study of

IOWA'S SOUTHEAST AREA



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

AN ECONOMIC BASE STUDY OF IOWA'S SOUTHEAST AREA

Introduction

This is a report of the economic activity and associated changes in a seven county area in Southeast Iowa. The counties included are Clinton, Scott, Muscatine, Louisa, Henry, Des Moines and Lee.

The area lies along the eastern border of Iowa. In an economic sense it is made up of the western halves of two distinct multi-county areas. The Davenport-Rock Island-Moline complex is the central city of the northern one of these two areas, and Burlington is the central city of the other. Both of these areas extend into Illinois for all except governmental functions. This report analyzes only the Iowa side of the areas but recognizes that many interstate relationships exist. On the Iowa side each area extends somewhat farther to the west for commuting and shopping activities than the western borders of the included counties. This Southeast area is the most heavily industrialized of all Iowa areas. The undeveloped countryside still supports a productive agriculture as a sideline to the major area activities.

The area had a total population of about 325,000 in 1960. The estimated population in 1967 was just short of 372,000. In the 10 years before 1960, the area had grown about 28,000 in population.

Total employment in the area has been increasing by three 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 open country is steadily declining in employment and population. Small towns show slow to moderate growth. Many larger towns and cities are growing rapidly.

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.

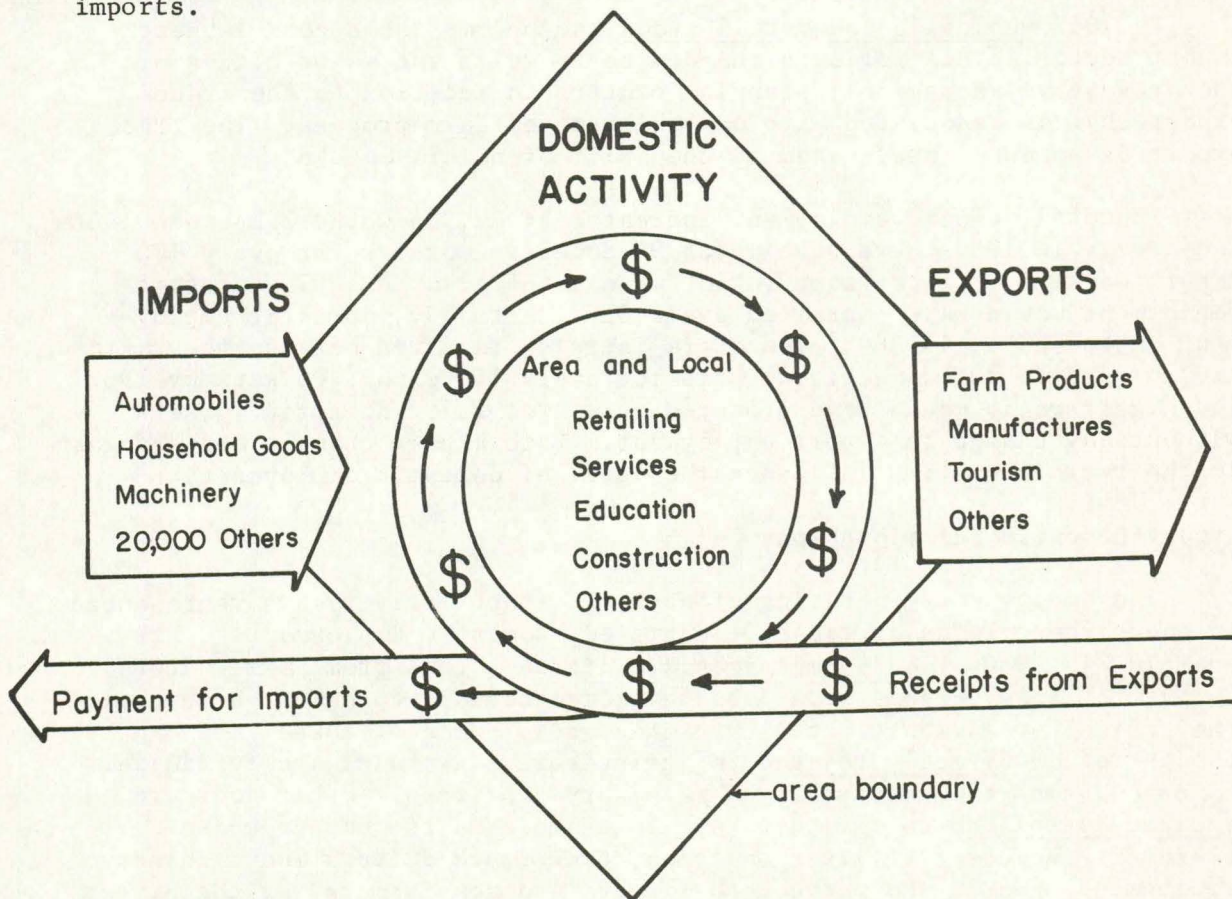


Figure 1. Export Domestic and Import Relationships.

The Changing Base

Table 1 provides employment comparison information for the Southeast 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 in comparison to its past level an important export sector, but is being pushed to sideline status in this area. It provided about one-sixth of the area's export employment in 1960 and about one-tenth in 1967. Between these years the export employment of agriculture declined by 2,251. 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 is the dominant export sector in this area. It accounted for 56 percent of total export employment in 1960 and increased to 64 percent of the total by 1967. The gain of 12,910 employees was more than the net export gain of the area.

By 1967 wholesale and retail trade had become the second largest export sector. This reflects the degree to which the major cities of the area serve as regional shopping centers in addition to the trade export that is associated with out-shipment of farm produce. The trade export is somewhat overstated by the split of natural areas.

In total, export employment increased by 12,303 workers between 1960 and 1967. In 1960 there were about 98 domestic workers for every 100 export workers. If the same ratio had existed also in 1967, domestic employment would have increased by 12,020. Actually, domestic employment increased by 15,364. The extra increase resulted because the ratio had changed to 102 domestic workers for every 100 export workers by 1967. The higher ratio would have produced a gain of 2,792 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, 11,279 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	9,636	7,385	-2,251	11,279	11,570	291
Construction and Mining export	598	1,732	1,134	576	1,671	1,095
Manufacturing export	35,259	48,169	12,910	31,891	44,951	13,060
Transportation, Communications and Utilities export	3,241	2,635	-606	2,861	2,443	-418
Wholesale and Retail export	8,800	10,375	1,575	10,079	11,900	1,821
Finance, Insurance & Real Estate export	1,324	780	-544	1,169	686	-483
Services export	3,865	3,950	85	3,412	3,410	-2
Area	62,723	75,026	12,303	61,267	76,631	15,364

In total, 11,279 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 9,636 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 291 in the domestic employment related to it. The ratio of 11,570 domestic workers to 7,385 export workers that existed for agriculture in 1967 is equivalent to 157 domestic workers for every 100 export workers. This is up sharply from the 117 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	20,915	18,955	-1,960
Construction and Mining export	1,174	3,403	2,229
Manufacturing export	67,150	93,120	25,970
Transportation, Communications and Utilities export	6,102	5,078	-1,024
Wholesale and Retail export	18,879	22,275	3,396
Finance, Insurance and Real Estate export	2,493	1,466	-1,027
Services export	7,277	7,360	83
Area	123,990	151,657	27,667

The domestic employment related to manufacturing showed the largest rise (13,060 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 18,955 jobs when we count both the export employment of agriculture and the domestic employment related to it. This was 12 percent of the total employment of the area. Manufacturing export was responsible for 61 percent of the total employment, and wholesale and retail export provided for 15 percent of the total. In 1960 the comparable percentages were 17 percent for agricultural export, 54 percent for manufacturing and 15 percent for wholesale and retail.

Employment by Sectors

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

Table 3 provides a good picture of the change of composition of the labor force, but it does not provide a cause and effect picture of employment shifts. Table 3 shows that agriculture jobs declined by 2,704 during the seven year period and that the sector slipped from 11 percent of total employment in 1960 to 7 percent in 1967. Corresponding increases were registered by manufacturing which picked up 4 percent of the total and by services with a 1 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 increased more slowly. The number of families in the area undoubtedly increased, but the increased employment was accomplished also by a shift to more workers per family.

Table 3. Employment by Sectors 1960-1967

Sector	1960	Employment		Percent of Total		
		1967	Change	1960	1967	Change
Agriculture	13,202	10,498	-2,704	11	7	-4
Construction & Mining	6,192	8,300	2,108	5	5	0
Manufacturing	38,587	52,235	13,648	31	35	4
Transportation, Communications, & Utilities	8,192	8,402	210	7	6	-1
Wholesale & Retail	25,021	30,670	5,649	20	20	0
Finance, Insurance & Real Estate	4,069	4,606	537	3	3	0
Services	28,727	36,946	8,219	23	24	1
Area	123,990	151,657	27,667	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 some rural parts of the Southeast Iowa area. Income per farmer is generally rising as farm consolidation continues, but an associated result is fewer farmers and fewer merchants to serve remaining farm households. The alternative of a constant number of farmers with declining incomes would probably be even less desirable for both farmers and merchants.

The most recent overall measurement of the income levels in the Southeast 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 several counties had incomes as high or higher than the Iowa average in both 1960 or 1967. For all but Des Moines County, the increase was above the Iowa average per worker increase. The highest levels of income within the area appear to be in the more industrialized counties of particularly Scott and Lee. Generally, table 4 would indicate that the area made progress in improving productivity and earnings per worker during the time that a sizable 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
Clinton	4,396	5,124	728
Des Moines	4,372	4,996	624
Henry	3,120	3,884	764
Lee	4,532	5,424	892
Louisa	2,916	4,144	1,228
Muscatine	3,916	5,132	1,216
Scott	4,936	5,832	896
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 9,868. Of these 85 percent or 8,404 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, 413 of them were 500 acres or over in size. This was 4 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 13 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 87 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 more prevalent in this area than for the state as a whole. Probably this is due to a relative abundance of non-farm jobs in the cities and some towns of the area.

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	413	5	6
Hiring 150 days of labor or more	1,071	13	10
Operator working off farm 100 days or more	1,370	16	12
Operator 65 years of age or older	792	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 38 percent of all farms, but only 14 percent of the total farmland was included in farms of this size group. At the other extreme, 24 percent of the farms were 260 acres or over and 49 percent of the farmland was in farms of this group. By 1970 it is likely that at least 50 percent of the land will be in farms of 320 acres or larger. This statistic seems to illustrate the march of farm technology and resulting consolidation more dramatically than does the average farm size measure, which is often pulled down by a 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	38	14
140-179 acres	17	14
180-259 acres	21	23
260 acres and over	24	49

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 (17 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 46 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	17	43
\$10,000 to \$29,999	46	46
Less than \$10,000	37	11

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 20 million bushels for a 46 percent increase. Soybean production was up 81 percent, fed cattle up 14 percent, beef cow numbers up 31 percent and swine down 3 percent. Lamb feeding and raising were both down, but these are minor enterprises for this area. The decline in milk cows of 36 percent is the only large 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 Southeast Iowa would show an increase of more than 20 percent for the 7 year period.

The percentage changes for each enterprise of the area can be compared to comparable changes for Iowa. It appears that Southeast Iowa has been concentrating particularly on crop operations as an expansion possibility. Beef cow numbers are not increasing as rapidly as in the state, and dairy cow numbers are decreasing more rapidly. The failure to increase fed beef and swine as rapidly as the state may be caused at least partially by growing income opportunities in crop farming and off-farm work.

Table 8. Agricultural Output

Enterprise	Unit	1958-60	1965-67	Change	Percent Change	
					Area	Iowa
Corn	1000 bu	43,889	64,028	20,139	45.9	23.9
Soybeans	1000 bu	3,408	6,182	2,774	81.4	100.2
Fed cattle	1000 head	193	220	27	14.0	44.9
Beef cows	1000 head	55	72	17	30.9	39.2
Pigs born	1000 head	1,414	1,365	-49	-3.5	2.4
Fed lambs	1000 head	59	42	-17	-28.8	-27.4
Lambs born	1000 head	53	41	-12	-22.6	-27.7
Milk cows	1000 head	50	32	-18	-36.0	-23.8

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

Manufacturing

Manufacturing is a sector of major and rapidly growing importance in the area. The one large export and related employment increase of the 1960-1967 period was the almost 26,000 additional employment in manufacturing export plus related employment. Manufacturing export activity has been the primary force responsible for the emergence of this area as a metropolitan community. Several industrial cities have developed along the Mississippi River, and satellite industrial developments have occurred in the towns adjacent to each city.

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

Table 9. Manufacturing Employment

County	1960	1967	Change	Percent County is of area with respect to		
				1960 Employ- ment	1960-67 Change	1967 Employ- ment
Clinton	7,019	6,999	-20	18	0	13
Des Moines	6,544	12,260	5,716	17	42	24
Henry	616	1,039	423	2	3	2
Lee	5,693	7,005	1,312	15	10	13
Louisa	290	462	172	1	1	1
Muscatine	3,877	5,251	1,374	10	10	10
Scott	14,548	19,219	4,671	37	34	37
Area	38,587	52,235	13,648			

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 dispersion of manufacturing activity over the area. In 1960, 4 of the 7 counties had more than 5,000 manufacturing jobs, but no county had more than 15,000. By 1967 a 5th county had reached 5,000 in manufacturing employment. Four of the 7 counties each gained more than 1,000 manufacturing jobs during 1960-67. By 1967 Scott and Des Moines counties were the leaders in manufacturing jobs and had the largest increases in recent years. Henry County does not compare well in this area, but it is one of the industrial leaders of the rural counties of Iowa. Louisa County has in the past had more out-commuters to manufacturing jobs elsewhere than its total of local manufacturing jobs.

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 467 individual plants in the area in 1963, 283 had less than 20 employees. On the other hand five plants had between 500 and 999 employees, and nine plants had 1,000 or more 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 93 plants including two of the nine largest plants and one-fifth of the plants with more than 100 workers.

A second category is "Processing of other local resources." This category included 52 plants, but 42 of these were in the smallest size category with less than 20 employees each. Most of the plants in this category in the southeast area were engaged in concrete mixing or forming. Others were engaged in operations involving stone, wood or clay products. The largest plant of the group was engaged in gypsum products manufacture.

"Production of non-feed inputs for agriculture" includes mainly farm machinery production, fertilizer production and animal biological products. There were 15 such plants in 1963 with 2 having 100 to 249 employees each and 1 of 1,000 or more employees. 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 43 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 219 plants in 1963.

The other 248 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 80 other kinds of products.

Much of the increase of manufacturing employment since 1960 appears to have been in the non-attached category. In 1963, the non-attached firms outnumbered the attached firms in every size category except the smallest. The major difference between this area and many other areas of Iowa in manufacturing growth has been the ability of the Southeast area to attract and hold large numbers of sizable firms of the non-attached type.

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	283	68	44	38	20	14	467
Processing of Ag. Products	54	14	9	9	3	4	93
Processing of Other Local Resources	42	6	2	1	1	0	52
Production of Non-feed Inputs for Ag.	6	2	4	2	0	1	15
Area Newspapers and Printing	43	10	4	1	1	0	59
Total Attached Mfg.	145	32	19	13	5	5	219
Non-attached Mfg.	138	36	25	25	15	9	248

Source: Manufacturing Census

The Southeast Iowa area has the advantage of being closest of all Iowa areas to the Chicago industrial center. In addition, the location of the Southeast area's cities along the Mississippi River has undoubtedly provided advantages in water supply, transportation and other aspects of industrialization.

In many other areas of Iowa, firms of the non-attached type have often been started by local persons with the aid of some local financing. Those few firms that have been established and operated by outside interests have usually been attracted by an underemployed supply of labor. It is doubtful that either of these generalizations can explain the substantial amount of growth of non-attached manufacturing in the Southeast area, except in the more rural parts of the area.

Earnings and Wages

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

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

All of these characteristics are present in Davenport and vicinity. Scott County has been the leading county in two of the three 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 Southeast area was above or about equal to the state average. The highest county levels in the area were each not more than 10 percent below the comparable high county level 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 some isolated parts of the southeast 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	\$ 7,560	\$ 5,353	\$ 2.62
Iowa Average	7,008	5,415	2.68
Scott County	7,571	6,305	3.01
Highest of Other Area Counties	8,023	5,259	2.58
Lowest of Area Counties	5,000	3,000	1.78
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 and farm produce buyers to avoid the congestion of large central cities.

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

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

From table 12 we can gain some feeling of market coverage and volume through the 1950's and early 1960's. In 1954 the area's recurring type sales were about \$374 million in 1963 prices. By 1963 the sales had increased to \$449 million for a 20 percent gain. This was a period of roughly similar percentage gain for all counties except Muscatine County which had only a 5 percent gain.

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 Southeast area in 1963, Scott County had the highest sales per capita indicating that Davenport was serving as an area shopping center for many items. Des Moines County was higher than its three adjoining counties indicating in this case, the strength of Burlington as a central shopping center.

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. All counties gained in trade employment in amounts such that there were no appreciable changes in each county's share of the total trade employment for the area. Clinton, Des Moines and Scott each gained slightly more than their share, and the others each lost slightly.

Table 12. Recurring Type Retail Sales

County	1954*	1963	Change	Percent Change	Per Capita 1963
Thousands of dollars					
Clinton	68,463	79,450	10,987	16.0	\$1,443
Des Moines	51,308	61,290	9,982	19.5	1,374
Henry	19,385	24,258	4,873	25.1	1,334
Lee	41,399	49,617	8,218	19.9	1,122
Louisa	9,998	12,686	2,688	26.9	1,233
Muscatine	40,324	42,251	1,927	4.8	1,249
Scott	143,060	179,676	36,616	25.6	1,509
Total Area	373,937	449,228	75,291	20.1	1,381
Area less Scott	230,877	269,552	38,675	16.8	1,307
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
Clinton	3,937	5,052	1,115	16	20	16
Des Moines	4,092	5,071	979	16	17	17
Henry	996	1,159	163	4	3	4
Lee	3,099	3,508	409	12	7	11
Louisa	618	675	57	2	1	2
Muscatine	2,262	2,783	521	9	9	9
Scott	10,017	12,422	2,405	41	43	41
Area	25,021	30,670	5,649			

Population Changes

The population of the Southeast area has increased steadily since before 1880 and appears to have grown rapidly since 1960. Table 14 gives information on population for counties and the area for several points in time between 1880 and 1967. Scott and Des Moines counties have had the most rapid recent growth, both in numbers and in percentage of increase. Louisa and Henry counties lack large cities and have not been able to cover up the effects of farm population decline. Henry County has grown moderately, and Louisa County is about steady in population. Clinton, Lee and Muscatine counties are of medium population size and are growing.

Additional population analysis can be done by considering the larger city portions separately from the rest of the area. In 1920 the total population of Davenport, Burlington, Clinton, Muscatine, Keokuk and Fort Madison and the suburbs of each was about 150,000. By 1967 these same cities and suburbs had a combined population of 236,000. The 86,000 population gain in these locations represents 72 percent of the total population gain of the area between 1920 and 1967.

The nine largest non-metropolitan towns of the area in 1920 had a combined population of almost 15,000. The smallest of these towns was just under 1,000 population, and the largest was slightly under 4,000. By 1967 these same nine towns had a combined population of about 24,000. Only one of the nine towns lost population, and Mount Pleasant, the largest of the nine in 1920, had doubled by 1967. Eight percent of the area's 1920-1967 population growth occurred in these nine towns.

About 20 percent of the 1920-1967 population growth appears to have occurred in the still smaller towns and in unincorporated settlements near the larger cities and towns.

Only a few of the smaller towns of the area have been declining in population. The availability of jobs within commuting distance has enabled most of the existing towns and hamlets to have a constant or slightly growing population. The increasing numbers of old people who are staying in the area have also helped to maintain the size of small towns over the years. A town that is just holding its own because of an increase in retired persons is, of course, declining in working age population.

The open-country population is declining in almost every rural township of the area as farming continues to decrease its requirement for labor. Both small towns and open-country areas have a smaller proportion of people under 15 years of age because of the sharp decline in births since about 1962. The reduction of birth rates has even dampened the population growth of the large metropolitan parts of the area to a level lower than it would otherwise have been.

Table 14. Population Change

County	1880	1900	1920	1940	1950	1960	1967
Clinton	36,763	48,382	43,371	44,722	49,664	55,060	57,938
Des Moines	33,099	35,989	35,520	36,804	42,056	44,605	57,868
Henry	20,986	20,022	18,298	17,994	18,708	18,187	19,317
Lee	34,859	39,719	39,676	41,074	43,102	44,207	47,597
Louisa	13,142	13,516	12,179	11,384	11,101	10,290	10,177
Muscatine	23,170	28,242	29,042	31,296	32,148	33,840	37,900
Scott	41,266	51,558	73,952	84,748	100,698	119,067	140,949
Area	203,285	237,428	252,038	268,022	297,477	325,256	371,746
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	12.5	10.6	10.5	10.6	11.3	11.8	12.9

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 Louisa County lost population between 1960-1967 and simultaneously (see table 4) had the largest gain in average annual earnings of private wage and salary workers. It might be said that considering the alternatives available, Louisa had the most progress during the 1960-1967 period. This is progress measured in terms of increased income per person, a frequently used measure of national progress.

Unlimited population decline, however, is not generally acceptable for all parts of a multi-county area. One reason is that increased income per person cannot be easily translated into increased purchasing power per person. The amount and variety of goods and services available within easy driving distance (generally not more than 50 miles) will shrink if there are no growing population centers within that distance. Louisa 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 some other location within one hour's driving distance. The situation will not be nearly so improved if all nearby cities are also declining in population and in services and goods offered.

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

The decline in small-town services may, however, not be as severe in areas of expanding job opportunities as compared to areas with steady or declining job numbers. The opportunity for small towns to become "bedroom" communities and thereby maintain a local demand for services is much greater in areas like Southeast Iowa.

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. All counties reached a peak in numbers of 0-4 age children in 1960 or in the preceding decade. These are the children who, upon entering school between 1960 and 1965, substantially outnumbered the high school graduating classes. By 1970, the expected 0-4 years of age population will be lower than it was in 1960 for every county except Scott. Grade school population will be dropping in rural areas in the early 1970's.

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

The 10-14 age group will be larger than at any previous time in history for all counties except Louisa. High schools in some districts 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 lower than indicated by the overall county numbers. A number of already small (in enrollment terms) school districts will become much smaller. The large city districts will continue to face extreme pressure from high school enrollment increases.

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

<u>County</u>	<u>Age Range</u>					
	Young			Old		
<u>Year</u>	Age 0-4	Age 5-9	Age 10-14	Age 65-69	Age 70-74	Age 74 +
<u>Clinton</u>						
1940	3462	3288	3574	1663	1269	1428
1950	5201	4356	3750	1896	1369	1735
1960	6266	5806	5208	2355	1785	2114
1970	5307	6205	6899	2361	1924	2641
<u>Des Moines</u>						
1940	2431	2495	2932	1515	1149	1404
1950	4325	3490	2776	1623	1222	1673
1960	4662	4588	4085	1924	1547	2019
1970	4628	6689	7129	1934	1704	2533
<u>Henry</u>						
1940	1183	1222	1387	855	737	838
1950	1731	1456	1227	885	754	1089
1960	1557	1589	1608	932	838	1205
1970	1392	1621	1775	921	765	1305
<u>Lee</u>						
1940	2929	2969	3319	1492	1266	1298
1950	4460	3689	3000	1701	1256	1627
1960	4568	4537	4161	1944	1519	1924
1970	3475	4890	5410	1878	1442	2245
<u>Louisa</u>						
1940	976	984	1090	455	380	448
1950	1157	1006	982	426	364	519
1960	1013	1082	1033	456	385	536
1970	893	1003	1026	447	392	557

Table 15 - Cont'd.

<u>County</u>	<u>Age Range</u>					
	Young			Old		
<u>Year</u>	Age 0-4	Age 5-9	Age 10-14	Age 65-69	Age 70-74	Age 74 +
<u>Muscatine</u>						
1940	2506	2454	2456	1154	962	1067
1950	3353	2792	2450	1426	994	1427
1960	3787	3365	3136	1561	1293	1683
1970	3575	4553	4706	1495	1217	1977
<u>Scott</u>						
1940	6359	5789	6199	2907	2079	2256
1950	11058	8252	6789	3539	2482	2979
1960	14368	12875	11061	4312	3315	4018
1970	15812	18471	19174	4369	3501	5244

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 Southeast area in 1967. The districts are also shaded to indicate enrollment levels. There were no districts in the area with less than 300 pupils in kindergarten through 12th grade. Seven districts had an enrollment between 300 and 500 pupils, four between 500 and 700 pupils and 23 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.

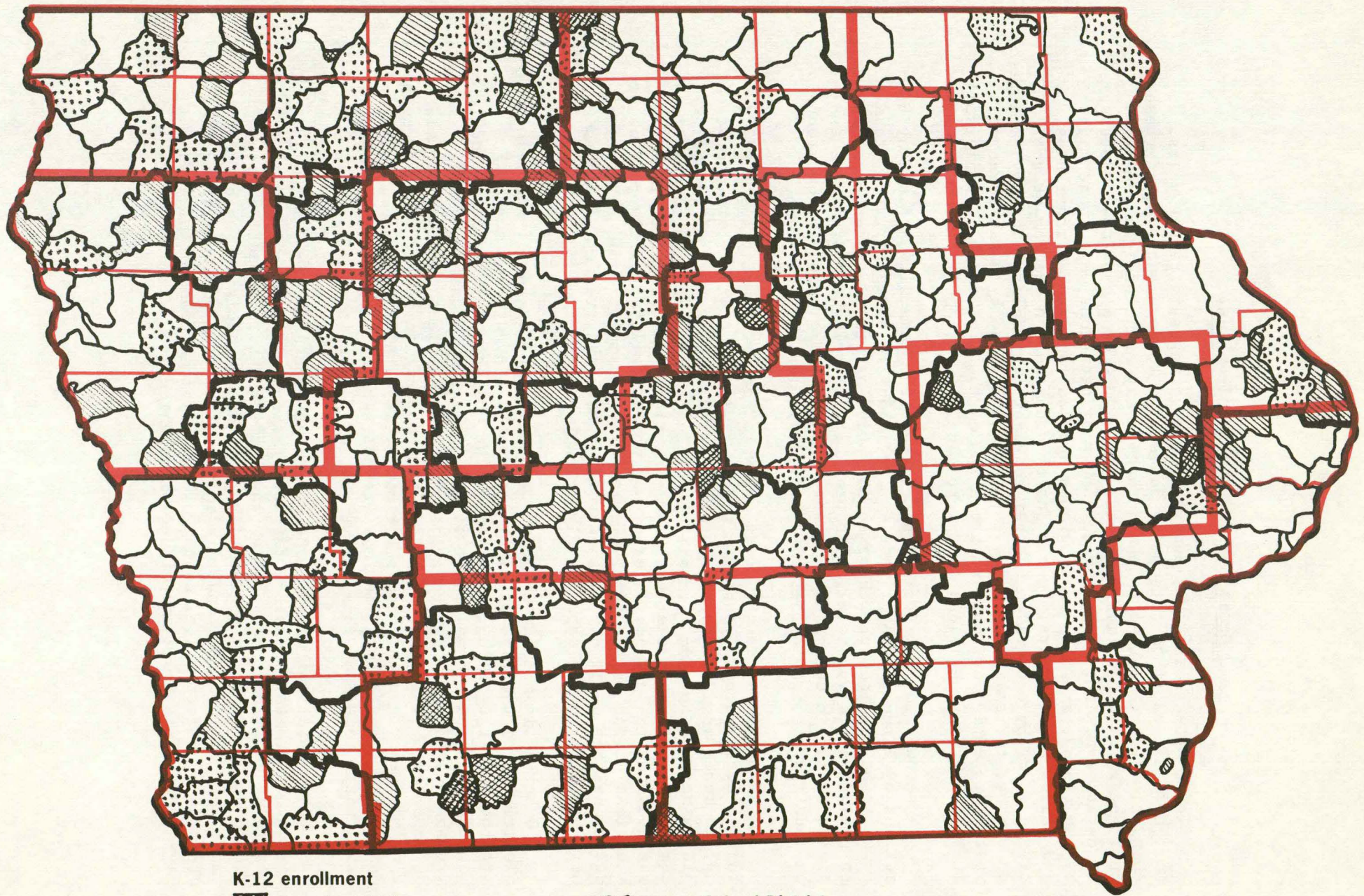
As people of parts of the Southeast area observe and study these patterns of cost and performance and the declining numbers of students in the future, they are likely to consider additional school consolidations. It is likely, also, that the school districts which had over 700 pupils in 1967 will be 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 every 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 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 Southeast area has undergone many changes in recent years. Most of this report to this point has served to document some of these changes. Before looking to the future it may be helpful to remember that the past changes all occurred as a result of a continual process of decision making. The largest number of decisions were those made by individuals and very small groups such as families, partnerships, and boards of directors. Decisions by young men on whether or not to try to farm, by bankers on whether to grant particular loans, by families on whether to remain in or leave the community and by businessmen on whether to expand or contract are a few of the many types of individual and small groups decisions that were made.

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

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

Other decisions may not have been possible because of special local conditions. A shortage of mineral deposits prevents any successful attempt at large mining operations. The absence of large lakes and mountains inhibits development of 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 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 the 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. The Davenport and Burlington parts of Southeast Iowa have generally developed along the typical functional area pattern that is found in 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. Of course, several satellite cities of Southeast Iowa have attracting powers of their own. Several are larger in size than the small central cities of western Iowa.

Table 16. Illustrative Set of Goals for Consideration

Goals	Difficult for national reasons	Within poss- ibility range	Difficult for local reasons
Merger of cities and suburbs			*
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			*

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

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

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

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

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

Some kind of study may also be needed concerning the degree to which the outlying parts of the area can tap the growth of the central city. More small plants might be encouraged to move to the outlying towns. In some cases an improved line of credit may be needed, along with management help, for undercapitalized firms already located in the towns.

To some extent, the people of Southeast Iowa 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, that 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.

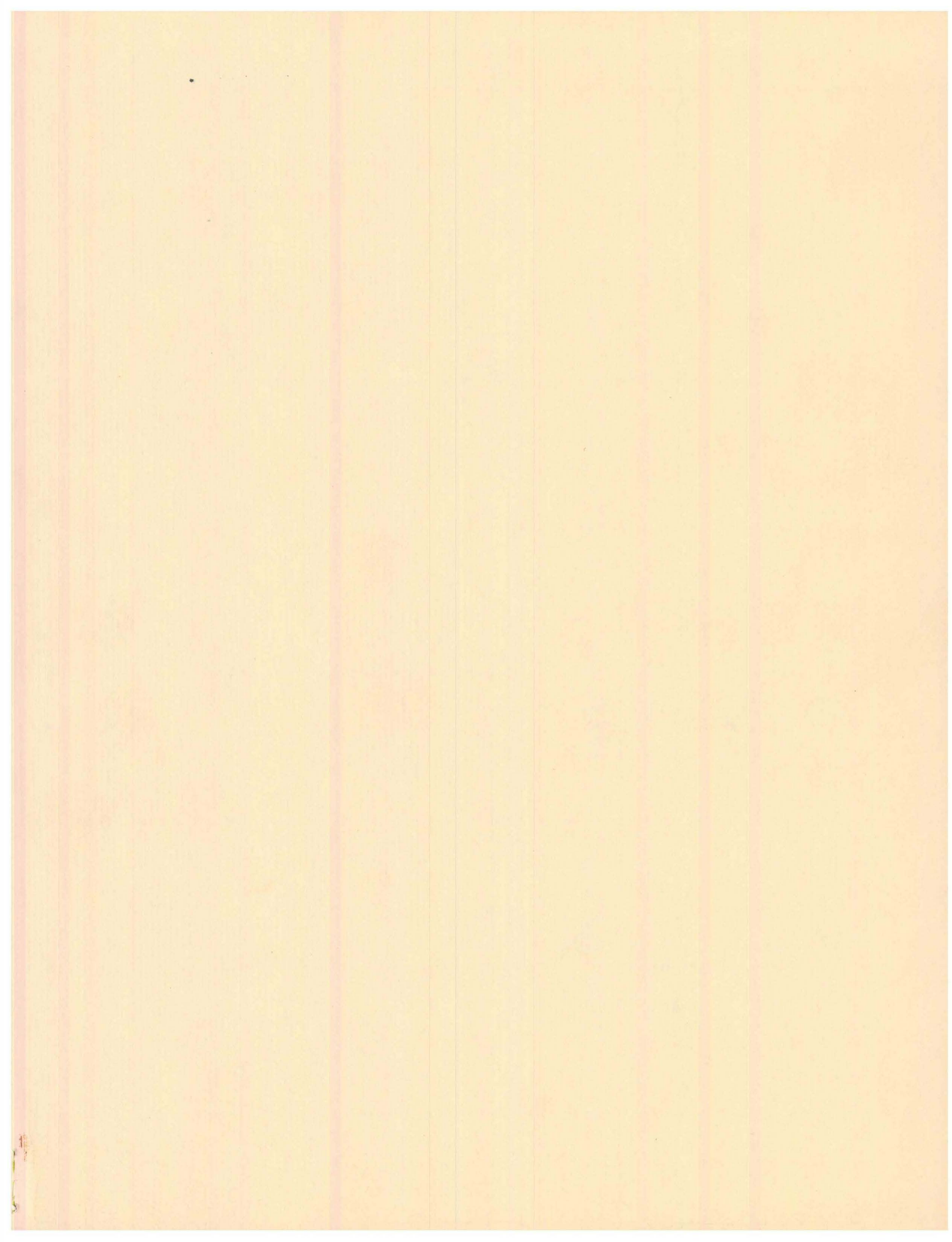
Each group of people responsible for making a location decision should remember that this decision also has an effect on the overall settlement pattern of the future. In many cases, the choice between any two or more places for a specific activity might be influenced by the relative effect of each location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