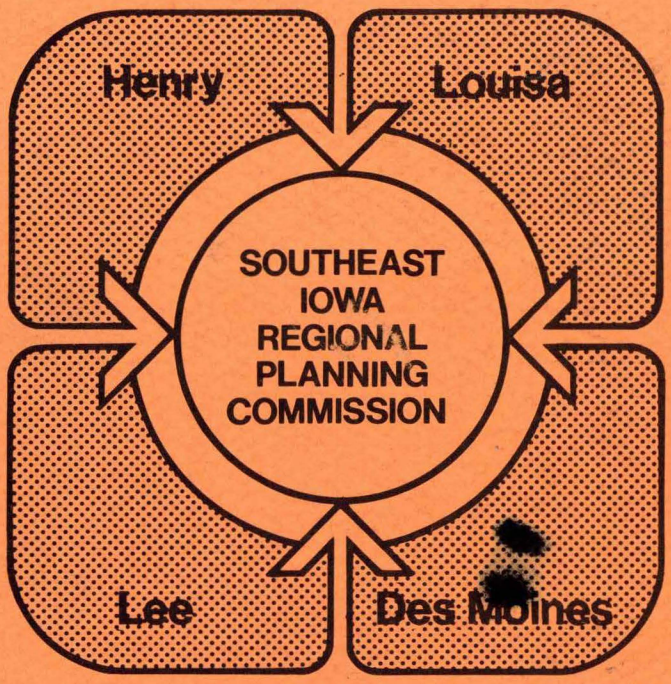

TECHNICAL ASSISTANCE PROJECT
ECONOMIC DEVELOPMENT ADMINISTRATION • U.S. DEPARTMENT OF COMMERCE
TAP

ECONOMIC DEVELOPMENT STRATEGY

SOUTHEAST IOWA REGIONAL PLANNING COMMISSION
REGION XVI
Barton-Aschman Associates, Inc.

BARTON-ASCHMAN ASSOCIATES, INC.
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MEMORANDUM TO: Mr. Michael Dunn, Executive Director
President and Members of the Southeast
Iowa Regional Planning Commission

FROM: Barton-Aschman Associates, Inc.

DATE: July 28, 1975

SUBJECT: Current Economic Conditions as They Relate to Phase I of the Economic Development Strategy

Throughout the course of the study in Region XVI, economic conditions have taken a dramatic downward turn with unemployment exceeding national unemployment figures. Traditionally, negative national economic conditions have not fully impacted the central states at the same time as the east and west coast areas of the nation. Unemployment in the Region XVI counties has risen sharply during the first half of 1975. In Des Moines County, unemployment rose to 8.5 percent in April and 9.1 percent in May. In North Lee County, the respective April and May figures were 8.6 percent and 7.5 percent. South Lee experienced a rapid increase for the same months--8.4 percent and 9.2 percent. Henry County had 8.6 percent and 7.5 percent unemployment rate over the same two-month period. While Louisa County was not reported, the closure of a major private industry in Columbus Junction has added 270 employees to the unemployment totals effective at the end of June. At the present time, unemployment totals 4,110 for the four-county region.

Compounding the regional unemployment picture is the revised employment termination schedule of the Iowa Army Ammunition Plant (IAAP). In June, 1973, when the employment termination plan was made public, employment at this facility approximated 3,000. As of July 7, 1975, IAAP employment was reported at 1,587 with 58 employees expected to be terminated by the end of July (1,529 employees). By November of 1975, 452 additional employees are expected to be terminated producing a November employment picture of 1,077. Since June of 1973, this facility has lost 64 percent of its employment within two years. This has caused a problem since the lay offs at the IAAP/AEC now coincide with the most severe unemployment in recent years for the region. Further, the employees are 82 percent male and average 46 years in age,indicating a difficult reemployment situation.

This turn of events is not reflected fully in the main body of the study effort due to the rapid change in the economic climate in the region. Prior to the recent unemployment situation and more current IAAP lay off statistics, the impacts of proposed government cut backs did not appear severe. The basis for this observation was the rapid reemployment experience that was tied to an expanding manufacturing sector. This manufacturing expansion is now halted and further government lay offs can only be interpreted as intensifying the unemployment situation in the region.

As the economy strengthens in the nation and the region, the strategies outlined in the main body of the report will again be relevant. At this time, however, some study should be given to the emergency conditions caused by coterminous government lay offs and otherwise high unemployment in the region. Based upon information available at the writing of the strategy phase of the report, this emergency situation could not have been predicted.

To date, the investigation into these employment terminations has been supported by the Department of Defense, Office and Economic Adjustment, and the Department of Commerce, Economic Development Administration. While the region has chartered an approach to counterbalance these negative economic effects, there is still the need to continue with the detailed preparation and implementation of the economic development strategy. The region's limited financial resources will not allow for the successful implementation of the actions proposed in the strategy.

The federal commitment to aiding the region has been made with the undertaking of this study. But now a renewed federal commitment is called for from the following agencies:

-- *Office of Economic Adjustment/Economic Development Administration:* To provide implementation staffing and continued investigation into the feasibility of locating a high-skilled industry in the region.

-- *U.S. Department of Labor:* To provide emergency CETA funds for retraining of the unemployed.

-- *U.S. Department of Housing and Urban Development:* To provide housing assistance funds to stimulate moderate income housing construction and rehabilitation.

-- *Environmental Protection Agency:* To support the improvement and development of sewer and water treatment facilities.

-- *Department of Transportation:* To support the investigation into the transportation needs of goods and services of local industry.

-- *Federal Energy Administration:* To support the development of alternative energy use incentives for industry and residents.

The continuation of the region's efforts to improve its economic position can be catalyzed by these federal agencies. Their renewed commitment should be sought for the benefit of all.

ECONOMIC DEVELOPMENT STRATEGY

SOUTHEAST IOWA REGIONAL PLANNING COMMISSION
REGION XVI

This technical assistance study was accomplished under a grant from the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the Grantee and do not necessarily reflect the views of the Economic Development Administration.

Employment surveys of local industries and goals evaluation surveys were financed independently through non-federal funding sources of the Southeast Iowa Regional Planning Commission.

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Consulting Economist: Dr. Marvin Julius
Iowa State University
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February, 1975

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This study was prepared through the combined efforts of the Southeast Iowa Regional Planning Commission and Barton-Aschman Associates, Inc.

Financial assistance was provided by the Economic Development Administration, Iowa Development Commission, and local county and municipal governments affiliated with the Southeast Iowa Regional Planning Commission. Without this financial assistance neither this study nor its potential benefits would have been possible.

Special acknowledgement is due to the Regional Planning Commission members and its Economic Development and Citizens Advisory Committees for their tireless efforts in analyzing and reviewing the working drafts, suggesting improvements, and providing overall direction. Special thanks is also in order to members of the Office of Economic Adjustment for their assistance and advice before and during the study.

Appreciation is expressed for the information and assistance provided during the study by local and state staff members of the Office for Planning and Programming's Divisions of Municipal Affairs, Comprehensive Health Planning, Economic Affairs, Education, and Transportation; the Iowa Development Commission's Divisions of Agriculture, Development, Research, and Tourism; the Iowa Employment Security Commission's Research and Statistics Division; the Iowa Geological Survey; the Iowa Conservation Commission's Divisions of Forestry and Planning; the Commerce Commission's Public Utility Division; the Iowa State Health Department; the Department of Transportation; the Department of Education's Career Education Division; the Department of Revenue's Research and Statistics Division; the Soil Conservation Commission; and Iowa State University's Center for Agricultural and Rural Development and Cooperative Extension Service.

Finally, special appreciation is extended to the region's county and municipal government officials, business and industrial leaders, and industrial development corporation and Chamber of Commerce personnel for their contributions in the preparation of this report.

PART I
INTRODUCTION
AND STRATEGY

1.
INTRODUCTION

The Southeast Iowa Region has embarked on a long-term effort to maintain and improve the economic viability of the four-county area through the creation of an economic development strategy. The commitment that will be necessary by the leadership of the region will be indicated by how well they have sought to implement the programs of this strategy. As indicated by this study, the region cannot afford to remain complacent and must seek continuous economic inprovements through the actions of this plan.

Unlike previous economic development strategy documents, this report does not establish a specific number of jobs, or factories or businesses to be created in a specific time period. Unlike previous economic plans, this strategy *is not a laundry list* of items that given total implementation will create a utopia. Rather, this particular strategy recognizes that the Southeast Iowa Region is a diversified economy requiring a variety of integrated policies affecting a broad range of problems; the implementation of which must fit the style and human resources of its inhabitants. Prior to the early 1970s, economic growth within the region resulted from the location of national manufacturing corporations desiring to take advantage of regional production economies in a growing Midwest market. Relocation plus expansion of existing industry that formed the trend of the early 1970s has slowed, due to the weakness of the national economy and the uncertainties of energy availability. Concern over the future of the region and the need for a program to guide efforts has become the charter for this economic development plan and strategy for Southeast Iowa.

The economic development strategy resulted from the extensive manpower curtailments at the federal government's Iowa Army Ammunition Plant and the accompanying closure of the Atomic Energy Commission's facility in the region. This study was financed largely by the Economic Development Administration's Office of Technical Assistance. Further financial assistance was provided by the Iowa Development Commission. Technical assistance and advice was supplied by the Office of Economic Adjustment and other Iowa Agencies.

The negative economic factors identified in this report do not point to the usual problems experienced by similar rural areas undergoing large-scale government employment cut backs. Instead, the issues point to the economic problems associated within a matured physical, social, and cultural environment which continues to be slowly drained of its younger workers. Because the Southeast Iowa Region is being impacted by recession unemployment for the first time, a renewed commitment must be made by all participants (e.g., federal and state agencies, local businesses and citizens) to improve the quality of the living environment and to stabilize the region's employment base.

The economic development strategy outlined in Chapter 2 provides a series of widely divergent but interrelated activities that upon implementation will address the major economic goals of the region:

-- Increase per capita personal income.

-- Stabilize the cyclical swings in employment.

-- Conserve and expand the human, physical and energy resources of the region.

The recommended actions of the strategy identify a regional approach to improve the quality of the living environment, to improve retail and service sectors, and to complement the existing mixture of major business and industry. If partially implemented, the actions of the strategy possibly will not have the necessary complementary effects of the total package of programs and actions. Implemented in full, the tailored actions of the strategy should create positive ramifications on all of the economic and human sectors of the region.

For those readers wishing a capsule view of the proposed economic development strategy for the region, Chapter 1 and 2 should be sufficient. Those individuals who wish specific insights into particular aspects of the region, should review the various chapters that comprise the background study section which follow:

Chapter 3--Demographic Characteristics

Chapter 4--Labor Force, Employment, and Occupational Trends

Chapter 5--Major Economic Sectors of Southeast Iowa

Chapter 6--Physical Inventory

Chapter 7--Impact of Employment Reduction at Atomic Energy Commission Iowa Army Ammunitions Plant

Chapter 8--Institutional Inventory

Chapters 9 and 10 offer an additional perspective of the region. Chapter 9 provides an economic forecast of employment and population for the four-county area based upon historical and current trends experienced in the multi-state area (i.e., upper Midwest) and the nation. Chapter 10 elaborates the goals for the region as determined by a survey of the region's opinion setters. The goals articulated by these individuals were combined with analysis of data collected in the background studies and the employment forecasts to generate a series of recommended actions which appear in Chapter 2.

The consultant wishes to express appreciation to those individuals who offered their time to direct our efforts through interviews and meetings. Likewise the consultant wishes to express appreciation to the staff and members of the Southeast Iowa Regional Planning Commission.

Michael V. Dunn--Executive Director

Joel G. Biggs, Jr.--Project Coordinator and Assistant Director

Samuel Korb--Manpower Specialist

Merle Kelly--Chairman, Economic Development Committee

Charles Frazier--Chairman, Southeast Iowa Regional Planning Commission.

Jack Waldhoff--Chairman, Southeast Iowa Regional Planning Commission.

2.
ECONOMIC DEVELOPMENT STRATEGY

Several key variables have been identified in the process of research, projection, and analysis that comprise this study. These key variables provide a pattern that strongly directs the types of actions and programs outlined in the section immediately following. These variables are reviewed below to establish the *rationale for the economic development strategy programs.*

VARIABLES OF THE REGION

1. *Projected decline in the nonexport employment portion of total employment.* Projections to 1985 show that nonexport employment will decrease, accounting for most of the overall decline in total employment in the region.

2. *Static employment growth in the export sector.* Projects to 1985 indicate that nonagricultural export employment (predominantly manufacturing) will rise slightly over 1970 levels. Increases are so slight that one must presume a static or near static situation.

3. *Population is projected to decline.* Population should decline in the region as the birth rate levels off to a zero growth position and as the ratio of population to total employment approaches 2.40.

4. *Labor participation rates will rise.* Since total population is projected to decline from 118,774 in 1970 to 107,614 in 1985 (a 9.4 percent decline) and since total employment will decline by a lesser amount (a 5.2 percent decline), proportionately more people will be engaged in the civilian labor force. This follows the historical trends for this and similar regions. Gains can be expected in the female labor participation rate and for males under 25 years of age. Only small percentage gains are expected in the male and female groups over 25 years of age, since the participation rate here is already fairly high. These factors are early signs of a constricting labor pool.

5. *Commuting of workers is near saturation.* Since workers are traveling great distances to work in the area and these workers represent substantial proportions of the available out-of-region work force, substantial labor pool expansions from this source would require significant higher wage differentials. These differentials do not now exist nor are they anticipated in the foreseeable future.

6. *Agricultural employment will be available at a decreasing rate as an alternative labor pool source.* Further declines of agricultural employment demand will occur but will reach the point of diminishing returns as the agricultural labor pool decreases to a minimum level.

7. *Older aged work force will require replacement.* Since the age profile of the current work force is older in age than comparable industrializing regions, replacement of retiring workers will represent a major work force need. About one-seventh of the work force will retire over the projection period of 10 years.

8. *Younger workers will be available.* Since the labor participation rate is low for males under 25 years of age and since the supply of future labor presently exists in the civilian population (over 16 years of age), this group represents a potential resource to replace retiring workers if this younger group can be retained in the region.

9. *In-migration of young families and single persons.* Although not much is known about the age structure of net migrations, a national trend appears to be emerging for young single and young married people to return to small town environments (towns under 50,000 population). These in-migrants represent a potential resource to improve the labor participation rate and stimulate the region's skill levels particularly in the professional managerial and service sectors.

10. *Ratio of residentiary[1] to export employment.*[2] The ratio of residentiary to export employment in the regions lags behind the state and nation--failing to increase between 1960 and 1970, and it is not projected to increase by 1985 unless the residentiary-oriented development strategy is implemented.

11. *Energy and material shortages expected.* Although natural gas allocation is not currently being controlled in the region, the Federal Power Commission has approved deregulation of newly discovered natural gas (this would require Congressional approval). Either deregulated

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[1]Residentiary Sector: Goods or services sold locally.

[2]Export Sector: Goods or services sold outside the region.

or synthetic natural gas will be increasingly costly even if the region does not experience curtailment of service. Residential energy consumers will also experience the rising costs of natural gas utilized for space heating purposes. Another serious problem will be the availability of certain petrochemical feedstocks, certain metals, plastics, etc. Additionally, since employee commuting is so prevalent in the region, the pump price of gasoline will be a factor in the rising cost of living for area commuting workers.

12. *Untapped Human Resources.* There are two areas where human resources could be tapped more fully: (a) retiring management personnel represent a viable entrepreneurial resource to the region and (b) females passing out of child rearing age who are properly trained (or could be) to enter the region's professional or technical ranks.

REGIONAL ECONOMIC DEVELOPMENT STRATEGY

The regional economic development strategy covers a wide variety of program topics besides the typical employment creation techniques (see Table 2-1). But this wide interpretation of economic development is indicative of the interrelationships that exist between employment conservation and expansion and the ensuing cultural, social, and recreational needs of an expanding economy.

The economic development strategy outlined represents a series of recommended long-term local actions. The scheduling of these actions and the programming of those actions that should take place immediately must remain a local option. The next step for the Regional Planning Commission is to establish work groups of three to four members on each recommended program. The responsibility for developing the specific work items of each program should reside within these work groups. The work items should be reviewed by all Regional Planning Commission members of the program to establish action priorities for the forthcoming year. Finally, it is important that the Regional Planning Commission be flexible in its approach to programming and scheduling, as the ability to seek federal and state financial support will remain a critical program determinant.

Program 1: Housing

- *Purpose:* To stimulate moderate cost housing through new unit production or rehabilitation of existing structures.

- *Objective:* To provide the region's young and labor force with desirable housing in proximity to employment.

- *Federal Assistance Available:* See Table 2-2.

Table 2-1
REGIONAL ECONOMIC STRATEGY

Economic Goals	Objectives	Programs
Increase per capita personal income.	Attract in-migration of young families and individuals.	1. Stimulate moderate cost housing. 2. Improve community facilities. 3. Retail and service sector program. 4. Transportation improvements. 5. Venture capital. 6. Promotion and information. 7. Direct industrial subsidies. 8. Business counseling. 9. Job training and placement. 10. Coordinate IDC. 11. Energy and materials contingency planning. 12. Tourism and recreational development.
Create non-cyclical export sector.	Attract or generate new high-skill, high-wage industries. Expand residentiary sector. Promote retention of young resident labor force. Satisfy energy and raw materials needs of export.	

Table 2-2
FEDERAL HOUSING PROGRAM ASSISTANCE

Source	Subsidy Type
Section 8 Housing Assistance Program	Conventional FHA financing with housing payments to make up rent differentials.
Traditional Public Housing	Annual contributions to public housing agencies to keep rents low.
Section 235 Home Ownership	FHA mortgage insurance and interest rate reduction payments.
Section 236 Rental	Same as 235 with additional payments to sponsors for very low-income families.
Section 202 Elderly	Direct loans to nonprofit, limited profit cooperative or public sponsors at going federal interest rate.
Section 312 Rehabilitation Loans	Direct three percent loans to owners to rehabilitate property from national $150 million revolving fund. To be discontinued in August of 1975.
Rural Housing--Section 504 Rehabilitation Loans and Grants	Direct owner loans or grants for single-family rural homes.
Rural Housing--Sections 514-516 Domestic Farm Labor Loans and Grants	Direct federal (USDA) subsidy for 90 percent of production cost to nonprofit cooperative, or public agencies.
Rural Housing--Section 515 Elderly Low-Moderate Income Housing	Direct or insured loans for multi-family rental housing.
Rural Housing--Section 524 Housing Site Loans	Direct (USDA) loans at going federal interest rate for site acquisition.

- *Local Actions:*

1. Convene a meeting of local builders, financial institutions, and public officials to discuss problems, issues and the means by which all parties can aid in stimulation of housing industry.

2. Establish a revolving loan fund or direct grants utilizing community development funds or general obligation bond proceeds and commitments by local financial institutions for rehabilitation and new construction financing.

3. Establish a fund to provide for interest rate write-downs in association with local financial institutions who utilize public fund escrow accounts.

4. Review local housing and building codes to determine outdated regulations and procedures which may inhibit economy in construction.

5. The Regional Planning Commission should seek a housing specialist as a staff member to develop a housing strategy to coordinate regional and local housing policy and to apply for federal and state grants. Possible housing strategy approaches:

   a. Utilize the Community Development Act and funds.

   b. Build new high-income or elderly units and attempt an upward filtering process.

Program 2: Community and Recreational Facilities

- *Purpose:* To improve the community and recreational facilities through the development of health care centers and utilization of existing public facilities for indoor recreation and cultural purposes.

- *Objective:* To maintain the region's attractiveness for the young and potential in-migrating labor force.

- *Local Actions:*

1. The Regional Planning Commission and local governments should develop a strategy for the implementation of decentralized health care facilities and construction of smaller-scale health care units.

2. Develop a plan for the reutilization and refitting of existing public structures (e.g., school property) for public recreation and cultural programs.

3. Encourage private and public/private investments in indoor recreation facilities.

4. Assist local governments to identify, develop, and promote locations of historical and cultural importance.

Program 3: Retail and Service Sector

- *Purpose:*

1. To strengthen the retail business and service operations as a means of attracting those retail sales dollars being lost to other more competitive retail centers outside the region.

2. To expand the product and service mix as a means of creating entrepreneurial opportunities as well as shopper satisfaction with what the region could offer.

3. To revitalize the aging downtown cores of the region's urban places and maximize the opportunities created by the extensive public and private investment in these areas.

4. To promote the overall attractiveness of the region to those age groups that are being lost through migration, by demonstrating a united public/private cooperation in redeveloping the retail and service centers.

- *Objective:* To expand employment offerings and maintain the attractiveness of the region's urban places.

- *Federal Programs:* Small Business Administration--
Loans and Guarantees

- *Local Actions:*

1. The local Chamber of Commerce and similar agencies, in cooperation with the Regional Planning Commission, should undertake a shopper and industrial survey to determine goods and services presently being bought or requested from outside the region. Likewise, an inventory should be made identifying the exact type and scale of activity that is being pursued in the various businesses within the retail and service sector.

2. The Chamber of Commerce, the Local Industrial Development Commissions, the Regional Planning Commission, the institutions and commercial businesses in the region should establish a managerial capital and technical assistance pool of financial resources and personnel in order to provide business counseling and financing to existing and potential entrepreneurs.

3. Local municipalities should aggressively promote their retail core through the planned intensification of retail and service operations around public/private investments.

4. The Chamber of Commerce, the Industrial Development Commissions, and the Regional Planning Commission should develop a local multi-media promotion program emphasizing the importance of buying locally and buying Iowa. The promotion program should be an integral part of the total region's promotional and informational efforts.

Program 4: Regional Transportation

- *Purpose:* To improve regional transportation through the coordination of state highway planning and construction programs with the growing demands for inter-modal transportation alternatives.

- *Objective:* To increase the region's competitive position for industry and commerce.

- *Local Actions:*

1. Undertake a generalized goods movement analysis to determine the transportation costs and origins and destinations of the region's industrial products.

2. Encourage the railroads to undertake a truck-rail piggyback evaluation for locations within the region.

3. Negotiate with the State Highway Commission regarding the regional transportation network and forthcoming priority projects.

4. Evaluate the need for bulk materials transfer and storage at locations realistic for efficient truck-river barge operations.

5. Encourage local industries to undertake the evaluation of commuter work trip movements and financially support car-pooling or van-pooling efforts.

6. Prepare a multi-modal transportation sketch plan and policy statement for the region.

Program 5: Venture Capital

- *Purpose:* To develop a source of venture capital through the establishment of a "one-stop" entrepreneur assistance center, where not only business counseling and loan packaging can be brought together; but a regional program can be developed to capitalize on investment loan funds available at local banks.

- *Objective:* Promote local entrepreneural efforts.

- *Federal Programs:* Small Business Administration's 502 Program.

- *Local Actions:* In order to take advantage of the Small Business Administration's Section 502 program and other business loans and grants, the region should establish a 25-member Local Development Corporation (LDC). The membership of the LDC should be broadly based, and include representatives from the industrial development commission, local financial institutions, colleges, corporations, local government, and the Regional Planning Commission. The LDC would be able to:

  1. Leverage the equity (or venture capital) raised from within the region by applying for SBA 502 guarantees of 80 to 90 percent of project cost for land acquisition, construction and equipment purchase.

  2. Seek venture capital from a variety of sources, thus allowing for resident participation at all levels. The LDC can sell stocks and/or debentures as well as seek grants from other institutions (e.g., private corporations or foundations) and federal agencies.

  3. LDC would maintain control of constructed assets and would lease facilities or equipment to local entrepreneurs. The types of development ventures can be broadly defined and the level of local venture capital participation can vary with the population of the community in which the venture development is to be located.

Up to 5,500 population	--10 percent local participation 90 percent banks and SBA
5,500-10,000 population	--15 percent local participation 85 percent banks and SBA
Over 10,000 population	--20 percent local participation 80 percent banks and SBA

  4. The loan packages on LDC ventures can combine SBA direct loans with local bank loans in order to reduce local bank's participation.

  5. The Local Development Commission can become an aggressive partner to the identification and development of a high-skilled and wage industry for the region while providing a vehicle for the application of business counseling and management personnel for the region's developing business and industry.

Program 6: Regional Information and Promotion Program

- *Purpose:* To develop a regionally-coordinated information and promotion program which would promote the various unique aspects, facilities, and resources to the region's present and prospective population, businesses, and industries.

- *Objective:* To generate local as well as outside awareness of the long-term viability of the region.

- *Federal Programs:* Economic Development Administration's Office of Technical Assistance.

- *Local Actions:*

1. A regional industrial promotion team should be constituted from individuals of special knowledge in the following areas: labor and wage characteristics, energy availability, local government interests, physical facilities, industrial mix. This team would work with industrial representatives and should consist of members of the Regional Planning Commission and local Industrial Development Commissions. Industrial recruiting activities should remain the responsibility of the local Industrial Development Commissions and municipal governments.

2. The promotion team should seek a federal grant to determine the feasibility of attracting a high-skilled and high wage industry to the region. (See Table 2-3.)

3. The Regional Planning Commission should serve as a clearinghouse and updating source for background statistical information used in identification, planning, and development of a regional promotional program.

4. A program that would promote existing local businesses and services and identify and recruit desirable new retail and service facilities should be established. The types of retail and service operations identified should be listed with local Chambers of Commerce and promoted and supported initially as local entrepreneurial ventures. For those operations beyond the capacity of local entrepreneurs, national chains should be sought or encouraged to expand.

5. The Regional Planning Commission working in concert with the local government and other institutions should disseminate information on the region's planning activities to citizens, businessmen, and industrialists.

Table 2-3
POTENTIAL INDUSTRIAL PROSPECTS

- Medical/dental equipment, supplies and furnishings manufacture
- OSHA (Occupational Safety and Health Act) safety testing and instrument equipment manufacture
- Oil field machinery manufacture
- Machine tool, dye and cutting manufacture
- Modular housing
- Metal cans and containers manufacture
- Materials handling equipment
- Consumer electronic appliances
- Consumer durables manufacture
- Soaps and cosmetic manufacture

Program 7: Industrial Subsidies

- *Purpose:* To provide financial inducements to selected industries willing to locate in the region.
- *Objective:* To support the existing economic base by attracting a high-skilled, high-wage industry to the region.
- *Local Actions:*

  1. The Regional Planning Commission should selectively promote the location of a high-skilled industry in the region using the financial subsidies indicated in Table 2-4.
  2. Intense redevelopment of central business districts should consider the capability of utilizing tax increment financing.

Program 8: Regional Business Counseling Service

- *Purpose:* To provide existing and new firms with sound business advice in marketing, product planning, inventory control, etc.

Table 2-4
INDUSTRIAL SUBSIDY SOURCES

Type	Remarks
1. Industrial Development Bonds	Interest subsidy from tax free bonds up to *$5 million* for plant construction.
2. General Obligation Financed Infrastructure	Subsidy for 99 plus percent of the cost of roadways, sewers, water mains, etc.
3. Tax Increment Financing	A provision of the Iowa redevelopment loans intended to freeze tax increments to pay principal and interest on bonded improvements needed to recycle blighted areas and provide land for industrial (or other) reuses including land write-down, infrastructure, relocation of existing uses, etc. No limit on amount except as available increments may cause.
4. Pollution Control Bonds	

- *Objective:* To promote local intrepreneurship and support the venture capital pool with needed technical assistance.

- *Federal Programs:* Small Business Administration's 406 Program.

- *Local Actions:*

  1. Utilizing a central agency (perhaps the LDC) as a coordinator and clearinghouse for service needs, a regional counseling service should be established.

  2. At present, business counseling services are offered through the Southeastern Iowa Community College. A summary statement should be made of the types of services offered, to whom, for what purpose, and the end results. Based upon this review, areas of service deficiency should be corrected either with personnel in the region or by taking advantage of the Small Business Administration 406 program of call contracts on special problems.

  3. Upon the creation of the regional, local, development corporation, the LDC should seek administration cost grants (from the EDA) to provide a variety of business counseling skills within the organization.

4. A regional promotional and informational program should be developed emphasizing the types of counseling services available and indicating the opportunity to seek outside technical expertise.

Program 9: Regional Employment Training Program

- *Purpose:* To provide manpower training for the unemployed, underemployed, and disadvantaged.

- *Objective:* To support the dynamic needs of industry through the training of the region's youth and retraining of the region's elderly.

- *Federal Programs:* Comprehensive Employment Training Act (CETA)--U. S. Department of Labor

- *Local Actions:*

1. Identification of regional manpower training needs and delivery systems with improved coordination of programs (see Table 2-5).

2. Liaison with local employers to determine specific short-term labor needs and labor force changes.

3. Establishment of a labor and wage rate information clearinghouse in the Regional Planning Commission.

4. Appointment of a manpower specialist to coordinate and produce manpower services.

Program 10: Coordinate Industrial Development Commissions

- *Purpose:* To utilize limited development resources more efficiently (i.e., professional and energy).

- *Objective:* To concentrate the scope of activities of the Industrial Development Commission for the benefit of all of the region's population.

- *Local Actions:*

1. A regional economic promotion team composed of directors of the local Industrial Development Commissions and representative of the Regional Planning Commission should be established. A unified effort should be generated to receive federal grants for administrative and technical assistance needed to explore the identification and feasibility of attracting high-skilled, high-wage industries.

Table 2-5
MAJOR MANPOWER TRAINING AND PLACEMENT PROGRAMS IN REGION 16[1]

Program	Number in Counseling and Placement	Administering Agency	Program Element	Program Objectives
Comprehensive Employment Training Act (CETA)	Employment Development Team 3	Office for Programming and Planning and Community Action (OPP)	On the Job Training (OJT) and Institutional Training at Community College-High School	Job Placement in the Private Sector or Public Sector, with Unsubsidized Employment the Goal
Work Incentive Program (WIN)	WIN Team 4	Department Social Service Referrals to State Employment Service	OJT-Institutional Training and Supportive Services	Removal from ADC or Welfare Roles into Unsubsidized Employment. Public or Private Sector
Vocational Rehabilitation	7	Rehabilitation Education, Services	Remove Physical or Emotional Barriers to Employment OJT-Institutional Training	Job Placement in Unsubsidized Employment
Employment Service Employer Representative	1	Iowa Employment Security Commission (IESC)	Counseling, Job Bank and Referral	Placement of Job Ready Persons in Full or Part-time Employment
Public Employment	1	Iowa Employment Security Commission (IESC)	Transitional Employment in Public Sector	Employment in either Public or Private Nonprofit Organizations

These 16 persons comprise the outreach staff sections involved in counseling, program development, and placement in their respective programs and not the entire agency personnel. For example, the Burlington IESC office has 13 persons in administration, secretarial, and counseling and referral. CETA, WIN, Vocational Rehabilitation Department of Social Service, etc. also maintain a staff of persons in administration, secretarial, or other capacities.

[1]Manpower Program: Programs intended to influence the quality and composition of the labor force by increasing the skills and employment opportunities for those who are vocationally unprepared or have barriers to employment. Target group is the unemployed, underemployed or disadvantaged persons. Youth programs available are: Job Corps, remedial education and training for disadvantaged youth, 16-21 years. Summer youth programs and part-time work, during the school year, are allocated each year by the Department of Labor.

2. Members of the regional economic team should identify areas of regional specialization based upon their individual interests and familiarity with the region, including:

   a. Promotional and informational needs.
   b. Research and development.
   c. Retail and service sector improvement.
   d. Federal/state grant management.

   Drawing upon the staff resources of their respective commissions, the regional economic team should prepare a work program to implement the actions and programs recommended in this strategy.

3. In cooperation with the Chamber of Commerce and the Regional Planning Commission, the IDCs should assist in conducting a retail and service sector survey within their own geographical area of responsibility. To aid in familiarizing the region's industry with the available technical and professional service trades and skills, this consortium of local economic development institutions should co-sponsor an annual one-day symposium on industrial and service opportunities.

4. The local IDCs should maintain their geographical integrity and responsibilities while recognizing the regional need of meeting and developing action program to address common regional problems that transcend the local scene (e.g., moderate income housing industry).

Program 11: Energy and Material Contingency Plans

- *Purpose:* To provide alternative actions for potential economic impacts of future energy and materials shortages within the region.

- *Objective:* To aid in the conservation of energy in order to maintain the economic growth of the region.

- *Local Actions:*

1. A regional, industrial/commercial energy contingency plan for gas customers.

2. Certain vehicle occupancy improvements discussed in the transportation program.

3. A regional loan program to finance installation of residential insulation to reduce space heating costs and fuel needs.

4. The use of steam heat or hot water for certain existing or new developments, particularly larger institutional and industrial uses. Such systems have great fuel flexibility including

mixtures of 10 percent fuel oil and 90 percent processed paper and cardboard. The potential for recycling trash as has been developed in Nashville, Tennessee, should be studied. Coal fired units can also be developed economically.

Program 12: Tourism

- *Purpose:* To obtain maximum economic advantage from the existing and planned tourism attractions within and immediately adjacent to the region.

- *Objective:* To use tourism as a means of complementing the existing employment opportunities while developing the potential of the tourism events held annually.

- *Local Actions:*

  1. The region should seek to identify the existing and proposed cultural, historical, and recreational attractions.

  2. A plan should be developed for linking all of the tourism events that occur throughout the year, together by type and season of year. These attractions should be evaluated for this in terms of transportation and support facilities needs.

  3. The region, through its existing 15-county tourism council, should seek additional funds to promote package trip events during peak seasonal periods.

  4. During the peak tourism period, a summer intern should be hired for the Regional Planning Commission. The responsibility of this summer intern would be to coordinate and promote regional tourism events.

ANTICIPATED ENVIRONMENTAL IMPACTS

The anticipated environmental impacts resulting from the organized application of the economic development strategy are expected to be minimal for several major reasons:

1. Economic program actions are oriented to non-capital intense solutions. For example, the industrial promotion program recommends the selective promotion of a high-skilled industry oriented to small component assembly and not primary production.

2. Economic program actions have been based upon the efficient utilization of resources available from within the region, e.g., school site reuse for recreational purposes.

3. Economic program actions for transportation and housing have sought the return of the region's employees to living accommodations within existing urban centers of the region.

While it can be expected that future economic development activities might conceivably raise the pollution potentials of various environmental areas (e.g., air, water, etc.), the concern of local and state government and industrial officials should provide an adequate check and balance environmental system.

The industrial promotion activities represent no known direct or indirect environmental hazard. The industries recommended as likely prospects generally fall into the category of light assembly and manufacturing. No industries fall within a broad class that is known to have difficult technological problems with pollution abatement as would a plating industry or a meat packer.

Since the industries locating in the region over the past several years are labor intensive, specific plant sitings should be analyzed for two specific characteristics: (1) parking and access routes should be analyzed to insure compliance with Indirect Source Regulations of the Clean Air Act, and (2) surface water runoff should be analyzed to prevent stream pollution. All industries should pass local and state floodplain siting requirements.

Other elements of the strategy should, if implemented, result in major environmental improvements to the region. The transportation recommendations and the rehabilitated housing recommendations in combination should cause a densification of existing urban centers and, thus, reduce urban sprawl. The reduction of urban sprawl and reduced usage of automobile travel through van pool or car pool should substantially reduce carbon monoxide emissions along major arterials and in industrial parking areas.

If housing expansions are limited to sites contiguous to existing urbanized areas either through rehabilitation of existing units or by construction of moderate income multiple units, the absorption of prime agricultural land should be minimized. Further, densifying present urban centers will reduce the number of units built on rural single-family sites, thereby utilizing septic tank and leach bed sanitary systems.

Though not addressed in the strategy per se, the background studies uncovered a proliferation of proposed water lines. The water service boundaries far exceed the areas proposed to be served by sanitary sewers. This strategy should be carefully analyzed prior to the implementation.

PART II
BACKGROUND

3.
DEMOGRAPHIC CHARACTERISTICS

In this chapter, demographic trends and characteristics are examined to determine how shifts in the location and composition of the population may relate to the development of an economic strategy for the region.

SUMMARY AND FINDINGS

In the four-county region, the population has increased so slowly as to constitute zero growth. However, this situation is not characteristic of the entire region, since many of the smaller towns and larger cities actually experienced substantial population *decline* between 1960 and 1970.

The region has experienced the natural increase of births over deaths characteristic of many areas in rural America. However, the birth rate is lower than the national and state average and parallels the declining national trend in births which occurred from 1961 to the present. Likewise, the region's death rate is rising and is higher as a percentage than that experienced at the state or national level, reflecting an older-age population.

When these and other factors are taken into account, the following basic trends can be identified.

1. The region has experienced a slow growth rate coupled with a high out-migration of young people. This has created a population with an age profile higher than normal. Although out-migration is lower than that for the state as a whole, it is still substantial in relationship to total population of the region.

2. Technological advances in the agricultural industry have resulted in a reduction in farm population which is relocating in urban centers of the region and the state.

3. The extent of future population increase depends upon how much of the out-migrating and shifting farm population can be absorbed socially and economically in nearby towns. Although data indicates an increase in rural population of the region, this is considered

a suburbanizing trend as opposed to a rural reintrenchment in the social or economic sense. Farm population is, in fact, declining and younger families and individuals are out-migrating at a rate that is higher than the rate at which they are absorbed in the local economy.

This pattern has several implications for the region. The first is that the out-migration from the region may constitute a healthy situation if it is accompanied by rising family income. This appears to be the situation since both farm and non-farm annual income has been rising and this is undeniably a positive measure or index of the general economic welfare in the region. A second implication of the observed trends is that shifts in population (except Keokuk) from rural to urbanized or urbanizing areas place additional demands on those centers to provide necessary services as appropriate to the population age profiles that occur. For example, an increase in elderly population requires health and housing services while an increase in child-bearing families requires schools and recreation facilities, etc. While such demands are being placed upon urban service areas, concurrent surpluses of such facilities as churches, school libraries, water supply, sewers, etc., occur in rural areas. This trend has occurred in Des Moines, Cedar Rapids, and Davenport, Iowa. Such dislocations brought about by the shift from rural to urban areas have not, to date, been a major problem for the *region* since to a large extent the shift has been out of the region, not to major cities within the region.

Future service facilities should be planned in relation to estimates of future population size and size profile. This should be done so as to balance institutional resources against human needs. The location of future employment centers in the region must consider, more than any other factor, the capability to provide needed services for future populations attracted by the employment opportunities.

POPULATION TRENDS AND CHARACTERISTICS

In comparing population trends of Region XVI to Iowa and the nation (see Table 3-1), it becomes apparent that Iowa like many midwestern states has a much lower growth rate than the nation. The 1960-1970 population increase for the United States was 13.3 percent while in Iowa it was 2.4 percent. Growth in Region XVI over the same period was 1.3 percent. This is very low when compared to national population trends.

Within Region XVI, over the last decade, population in Des Moines County and Louisa County increased 5.3 percent and 3.8 percent, respectively. These gains were still less than one half the national rate which was 13.3 percent over the same period. Henry County and Lee County experienced *absolute* losses of -0.4 percent and -2.7 percent, respectively (see Table 3-2). All major cities in the region lost population in the last decade with the largest loss--10.3 percent--occurring in

Table 3-1
POPULATION OF UNITED STATES, IOWA AND REGION, 1940-1970

Year	United States	Iowa	Southeast Iowa Region
1940	131,669,275	2,538,268	107,256
1950	150,697,361	2,621,073	114,967
1960	179,233,175	2,757,537	117,289
1970	203,211,926	2,825,041	118,774
Percent Change 1940-1950	+14.5	+3.3	+7.2
Percent Change 1950-1960	+19.0	+5.2	+2.0
Percent Change 1960-1970	+13.3	+2.4	+1.3

Source: U.S. Census of Population.

Table 3-2
POPULATION BY COUNTY AND REGION, 1940-1970

County	1940	1950	1960	1970	Percent Change 1960-1970
Des Moines	36,804	42,056	44,605	46,982	+5.3%
Henry(1)	17,994	18,708	18,187 (17,146)	18,114 (17,889)	-0.4 (+4.3)
Lee(2)	41,074	43,102	44,207 (42,894)	42,996 (42,119)	-2.7 (-1.8)
Louisa	11,384	11,101	10,290	10,682	+3.8
Region	107,256	114,967	117,289	118,774	+1.3

(1)Data in brackets exclude Mt. Pleasant Mental Health Institute population.

(2)Data in brackets exclude Fort Madison Prison population.

Source: U.S. census of population and SEIRPC.

Keokuk. The loss in Fort Madison was 8.2 percent, Mt. Pleasant 4.5 percent, and Burlington 0.2 percent.[1] Wapello, the County Seat of Louisa County, gained 7.3 percent over the decade (see Table 3-3).

Table 3-3
POPULATION BY COUNTY SEAT, 1940-1970

City	1940	1950	Percent Change	1960	Percent Change	1970	Percent Change
Burlington	25,832	30,613	18.5%	32,430	5.9%	32,366	- 0.2%
Fort Madison(1)	14,063	14,954	6.3	15,247 (13,934)	2.0	13,996 (13,119)	- 8.2 (- 5.9)
Keokuk	15,076	16,144	7.1	16,316	1.1	14,631	-10.3
Mt. Pleasant(2)	5,843	4,610	-21.1	7,339 (6,298)	25.6	7,007 (6,782)	- 4.5 (+ 7.7)
Wapello	1,603	1,755	9.5	1,745	-0.6	1,873	7.3

(1)Data in brackets exclude Fort Madison Prison population.
(2)Data in brackets exclude Mt. Pleasant Mental Health Institute population.

[1]These observations require some qualification due to major declines in the inmate populations of two state facilities located in the region--the Mt. Pleasant Mental Health Institute in Henry County and the Fort Madison Prison in Lee County. Between 1960 and 1970, the populations of the institute and prison decreased by 816 and 436, respectively. Since the population levels of these institutions are not necessarily influenced by or related to the communities in which they locate, it can be argued that these groups should be separated from the community and county populations when reviewing growth trends. When such adjustments are made, both Mt. Pleasant and Henry County show a substantial percentage population increase over the decade. Adjusted figures for Fort Madison and Lee County continue to show a population decline.

For many decades, the State of Iowa and the region have experienced population out-migration. This has been caused in part by the decline in farm population and the low-manufacturing profile of the state. It appears the trend in out-migration for the decade accounted for a loss of 236.315 persons or -9.0 percent net migration for 1950-1960. Out-migration from the state during the 1960-1970 period accounted for 180,040 persons or a rate of -6.5 percent. This represents the lowest state out-migration rate in the last three decades. While there is large variation between counties within Region XVI regarding migration rates, the region compares with state out-migration trends and as a whole experienced a -5.4 percent net migration rate (see Table 3-4).

Table 3-4
POPULATION: NET MIGRATION BY IOWA, REGION AND COUNTY, 1960-1970

County	Population 1960	Population 1970	Actual Change	Percent Change	Natural Increase(1)
Des Moines	44,605	46,982	+2,377	+5.3%	+4,003
Henry(4)	18,187	18,114	-73	-0.4	+646
	(17,146)	(17,889)	(+743)	(+4.3)	
Lee(5)	44,207	42,996	-1,211	-2.7	+2,688
	(42,894)	(42,119)	(-775)	(-1.8)	
Louisa	10,290	10,682	+392	+3.8	+503
Region	117,289	118,774	+1,485	+1.3	+7,840
Iowa	2,757,537	2,825,041	+67,504	+2.5	+247,544

County	Potential Population(2)	Net Change(3)	Percent Migration 1960-1970
Des Moines	48,608	-1,626	-3.6%
Henry(4)	18,833	-719	-4.0
	(17,792)	(+97)	(+.5)
Lee(5)	46,895	-3,899	-8.8
	(45,582)	(-3,463)	(-8.2)
Louisa	10,793	-111	-1.1
Region	125,129	-6,355	-5.4
Iowa	3,005,081	-180,040	-6.5

(1)Excess of births over deaths.

(2)Total of population at beginning of decade plus the natural increase.

(3)Potential population minus actual population at the end of the decade.

(4)Data in brackets excludes Mt. Pleasant Mental Health Institute population.

(5)Data in brackets excludes Fort Madison Prison population.

Source: Computed from U.S. Bureau of Census, Iowa Vital Statistics and Southeast Iowa Regional Planning Commission.

In the State of Iowa, there has been a steady and pronounced shift in population from rural to urban. About 1955, the rural and urban populations were roughly equal. The 1970 census revealed that the state proportion of urban dwellers is now about 57 percent and rural dwellers 43 percent. This represents a "straight-line" trend extending from 1900 to 1970. This state trend was characteristic of Region XVI during the 1950s. The 1940 and 1950 shift followed state trends, reflecting a declining farm population in an urbanizing region. During the 1960s, however, this trend did not continue (see Table 3-5).

Within the region, the number of rural residents increased by 3.1 percent while towns declined by 3.1 percent. All counties exhibited a trend in the last decade suggesting increased rural growth (see Appendix Table 3-1). Since farm population has steadily declined over the last decade, it must be assumed that persons are locating or relocating in unincorporated areas (see Appendix Table 3.1). This is not to say that Region XVI is returning to a rural economy. It does imply that cities in each county are not capturing the population within corporate limits, even though they are a major part of the local economy.

Population density figures reveal some interesting facts about the region. Only 22 counties in the state have densities in excess of 50 persons per square mile. In 1970, the density in Des Moines County was 115 persons per square mile. The density in Lee County was 82, 41 in Henry County, and 27 in Louisa County. The region-wide density averages out to 67 persons per square mile. It is important to note that densities in Des Moines and Lee Counties are fairly high by state standards. In Henry and Louisa Counties, they are fairly low and similar to many predominately rural/agricultural counties in the state (see Table 3-6).

There is evidence that the regional birthrate is declining from the 1961-1962 boom years (see Tables 3-7, 3-8). This parallels state and

Table 3-5
POPULATION: RURAL VERSUS URBAN, IOWA AND REGION, 1960-1970

Place	Percent--Urban(1) 1960	1970	Percent--Rural(2) 1960	1970
Iowa	53.0%	57.2%	47.0%	42.8%
Region XVI Area	63.0	59.9	37.0	40.1

(1)Towns of 2,500 population or greater.

(2)All people living in areas and places of less than 2,500.

Source: Population trends of incorporated places in Iowa, 1900-1970.

Table 3-6
POPULATION DENSITY BY REGION AND COUNTIES, 1970

	Region	Counties			
		Des Moines	Henry	Lee	Louisa
Land Area	1,778	408	440	527	403
Total Population	118,774	46,982	18,114	42,996	10,682
Per Square Mile	67	115	41	82	27

Source: County and City Data Book, 1972

Table 3-7
BIRTHS, DEATHS, AND NATURAL INCREASES BY COUNTY, 1960-1973(1)

Year	Births	Deaths	Natural Increase	Year	Births	Deaths	Natural Increase
Des Moines County				Henry County			
1962(2)	775	346	+ 429	1960(2)	245	163	+ 82
1961	1,006	471	+ 535	1961	296	235	+ 61
1962	1,023	520	+ 503	1962	322	229	+ 93
1963	980	528	+ 452	1963	306	236	+ 70
1964	961	477	+ 484	1964	306	201	+105
1965	819	515	+ 304	1965	237	224	+ 13
1966	822	522	+ 300	1966	282	234	+ 48
1967	813	484	+ 329	1967	256	173	+ 83
1968	807	495	+ 312	1968	270	242	+ 28
1969	790	509	+ 281	1969	265	232	+ 33
1970	838	517	+ 321	1970	280	217	+ 63
1971	701	503	+ 198	1971	282	210	+ 72
1972	588	486	+ 102	1972	201	237	- 36
1973	596	522	+ 74	1973	235	185	+ 50
Total:	11,519	6,895	+4,624	Total:	3,783	3,018	+765

(1) The births, deaths, and natural increases by county are for the 13-year period, 1960-1973, beginning on April 1, 1960, through December 31, 1973.

(2) Includes births and deaths for the period of April 1 through December 31 only.

Source: Iowa Vital Statistics, Iowa Department of Health, annual reports.

Table 3-7
BIRTHS, DEATHS, AND NATURAL INCREASES BY COUNTY, 1960-1973[1] (Continued)

Year	Births	Deaths	Natural Increase	Year	Births	Deaths	Natural Increase
Lee County				Louisa County			
1960[2]	674	372	+ 302	1960[2]	122	85	+ 37
1961	936	480	+ 456	1961	198	128	+ 70
1962	872	472	+ 400	1962	197	130	+ 67
1963	868	520	+ 348	1963	205	125	+ 80
1964	834	542	+ 292	1964	203	121	+ 82
1965	786	553	+ 233	1965	190	122	+ 68
1966	685	531	+ 154	1966	168	142	+ 26
1967	644	530	+ 114	1967	188	131	+ 57
1968	672	522	+ 150	1968	173	160	+ 13
1969	697	520	+ 177	1969	152	130	+ 22
1970	723	518	+ 205	1970	156	111	+ 45
1971	637	524	+ 113	1971	167	138	+ 29
1972	611	552	+ 59	1972	166	107	+ 59
1973	554	548	+ 6	1973	143	109	+ 34
Total:	10,193	7,184	+3,009	Total:	2,428	1,739	+689

[1] The births, deaths, and natural increases by county are for the 13-year period, 1960-1973, beginning on April 1, 1960, through December 31, 1973.

[2] Includes births and deaths for the period of April 1 through December 31 only.

Source: Iowa Vital Statistics, Iowa Department of Health, annual reports.

Table 3-8
BIRTHS, DEATHS, AND NATURAL INCREASES FOR REGION, 1960-1973

Year	Births	Deaths	Natural Increase	Year	Births	Deaths	Natural Increase
1960[1]	1,816	966	+ 850	1967	1,901	1,318	+ 583
1961	2,436	1,314	+1,122	1968	1,922	1,419	+ 503
1962	2,414	1,351	+1,063	1969	1,904	1,391	+ 513
1963	2,359	1,409	+ 950	1970	1,997	1,363	+ 634
1964	2,304	1,341	+ 963	1971	1,787	1,375	+ 412
1965	2,032	1,414	+ 618	1972	1,566	1,382	+ 184
1966	1,957	1,429	+ 528	1973	1,528	1,364	+ 164
Total All Years:					27,923	18,836	+9,087

[1] Includes births and deaths for the period of April 1 through December 31 only.

Source: Iowa Vital Statistics, Iowa Department of Health, annual reports.

national trends, except that the overall rates appear lower for each year. Death rates have been increasing but not significantly. The death rates are higher for the region (averaging approximately 11.5 percent) than for the nation (averaging approximately 9.5 percent) and Iowa (averaging approximately 10.5 percent) over the same period. This reflects the older-age profile generally in the state and the region.

The age characteristics presented in Appendix Tables 3-2, 3-3, and 3-4 indicate the trends apparent in the region parallel state trends. The 0-9 year age group declined 11.2 percent in the last decade. The 10-19 year and 20-29 year age groups experienced the largest increases in population. The 20-29 year age bracket showed a sharp reversal from the prior decade from a 27 percent decline to a 29.5 percent increase. The 30-39 age group continued lagging, but at a greater rate of decrease this last decade. Another significant change was a large percentage increase in the 60 and over age categories. This reflects an aging population pattern in the region with major advances in the young adult and college-age persons (ages 19-30).

Insofar as the racial composition of the region is concerned, the regional black proportion exceeds the state average. This is to be expected since the black population is predominantly in urbanized areas. Most of the black population is centered in the Cities of Waterloo, Burlington, Keokuk, Des Moines, Council Bluffs, Fort Madison, Cedar Rapids, Davenport, and Sioux City. A region-wide breakdown shows Lee County with the major share of the regional black population with 54 percent of all black residents living in the county. Lee and Des Moines Counties account for 95 percent of the black population of the region (see Table 3-9). Table 3-10 indicates that Burlington, Fort Madison, and Keokuk share the urban black population of the region more or less equally with 2.4 percent, 3.1 percent, and 3.7 percent, respectively, of their total population being black.

Although the black proportion is small when compared to the nation or other urbanized areas of similar size in the Midwest, it is increasing at a faster rate than the white population categories or others (American Indian, Japanese, Chinese, or Spanish-American).

Another significant racial minority in the region is Spanish-American. According to available statistics, there were approximately 1,100 persons of Spanish descent in the region in 1970. A county-by-county breakdown shows that Lee County has the major share of the regional Spanish-American population (665 or 60 percent) followed by Des Moines County (418 or 39 percent). Together these two counties accounted for 99 percent of the region's Spanish-American population. The majority of Spanish-American in the region are located in and around Burlington and Fort Madison.

Table 3-9
RACE DISTRIBUTION BY COUNTY AND REGION, 1960-1970

County	Total	Black		White		Other	
		Number	Percent	Number	Percent	Number	Percent
1960							
Des Moines	44,605	489	1.1%	44,083	98.8%	33	0.1%
Henry	18,187	100	0.5	18,070	99.4	17	0.1
Lee	44,207	1,039	2.4	43,153	97.6	15	0.0
Louisa	10,290	0	0.0	10,288	99.9	2	0.0
Region	117,289	1,628	1.3	115,594	98.6	67	0.1
Iowa	2,757,537	25,354	0.9	2,728,709	99.0	3,474	0.1
1970							
Des Moines	46,982	798	1.7	46,016	97.9	168	0.4
Henry	18,114	91	0.5	17,985	99.3	38	0.2
Lee	42,996	1,033	2.4	41,836	97.3	127	0.3
Louisa	10,682	1	0.0	10,663	99.8	18	0.2
Region	118,774	1,923	1.6	116,500	98.1	351	0.3
Iowa	2,825,041	32,596	1.2	2,783,427	98.5	9,018	0.3

Source: U.S. Census of Population.

Table 3-10
RACE DISTRIBUTION BY COUNTY SEAT, 1960-1970

County Seat	Total	Black		White		Other	
		Number	Percent	Number	Percent	Number	Percent
1960							
Burlington	32,430	482	1.5%	31,923	98.4%	25	0.1%
Fort Madison	15,247	358	2.4	14,886	97.6	3	0.0
Keokuk	16,316	609	3.7	15,698	96.2	9	0.1
Mount Pleasant	7,339	98	1.3	7,225	98.4	16	0.3
Wapello	1,745	-	-	1,745	100.0	-	-
1970							
Burlington	32,366	770	2.4	31,585	97.6	11	0.0
Fort Madison	13,996	429	3.1	13,491	96.4	76	0.5
Keokuk	14,631	547	3.7	14,054	96.1	30	0.2
Mount Pleasant	7,007	90	1.3	6,891	98.3	26	0.4
Wapello	1,873	-	-	1,873	100.0	-	-

Source: U.S. Census of Population.

The relationship of the growth in population to the number of households living in year-round dwellings (see Appendix Table 3-5) indicates the rate of household formation or the "undoubling rate."[2] The data shows a fairly healthy undoubling rate for all counties and all cities in the region. The household formation exceeded population growth in most cases by approximately six percent in the last decade. This indicates the earlier household formation of young families and a higher incidence of household formation on the part of older families and individuals. This is a phenomenon that occurs in an expanding economy that generates higher household incomes combined with contemporary social pressures which have produced the dissolution of extended families.

INCOME CHARACTERISTICS

Median family income figures for the region indicate that in 1960 median income was below the state level in Henry and Louisa Counties. In 1970, median family income in Lee and Louisa Counties did not match state levels. However, the gain in Louisa was the highest, rising 107.9 percent over the prior decade. Lee County experienced a 69.6 percent gain which was below the state's 10-year gain of 77.9 percent Regional median family income in 1970 exceeded the state level overall, and the percent growth lagged behind the state level (see Table 3-11).

Table 3-11
MEDIAN FAMILY INCOME CHANGE BY STATE, REGION, AND COUNTY, 1960-1970

County	Median Family Income, 1960	Median Family Income, 1970	Percent Change 1960-1970
Region	$5,256	$9,225	75.0%
Iowa	5,069	9,018	77.9
Des Moines	5,733	9,636	68.1
Henry	4,639	9,128	96.8
Lee	5,282	8,956	69.6
Louisa	4,169	8,668	107.9

Source: U.S. Census of Population.

[2]"Undoubling rate"--the breaking up of families into smaller separate households.

In 1970, the median income for black families in the region was comparable to the total in the state. The difference within the region between median income for blacks and whites was fairly significant. Averaging the difference in the two counties where data was available, the differential amounted to $1,400 or $1,500 dollars per family per annum, with a high-median difference of $2,360 in Lee County and a low difference of $1,277 in Des Moines County. The Burlington differential amounted to $1,204 in annual median family income. Where data on median income was available, the differential between Spanish and white was determined to be inconsequential (see Tables 3-12 and 3-13).

When analyzing categories of 1970 family income in the region (Table 3-13), families under $3,000 accounted for 9.3 percent in the region, 10.1 percent in the state, and 10.3 percent in the nation. For the $3,000 to $3,999 range, the region equaled the state with 5.4 percent but exceeded that of the nation, which was 4.5 percent. Overall, the pattern of family income closely parallels the state but has a "bulge" in the middle-income ranges of $4,000 to $15,000 when compared to the national distribution. Conversely, in the higher and lower income brackets, the region is below the national averages.

Table 3-12
MEDIAN FAMILY INCOME BY RACE FOR COUNTIES, COUNTY SEATS, AND THE STATE OF IOWA, 1970(1)

	White	Black	Spanish(2)
Des Moines County	$9,652	$8,375	N.A.
Henry County	9,103	N.A.	N.A.
Lee County	8,985	6,625	$8,577
Louisa County	8,668	N.A.	N.A.
Burlington	9,561	8,375	N.A.
Fort Madison	N.A.	N.A.	9,385
Keokuk	N.A.	N.A.	N.A.
Mt. Pleasant	N.A.	N.A.	N.A.
Wapello	N.A.	N.A.	N.A.
State of Iowa	9,040	6,916	9,014

(1) Data reported for 1960 income levels.

(2) Data is only available for counties and places with 400 or more persons of Spanish language.

Source: U.S. Census of Population.

Table 3-13
FAMILY INCOME BY CATEGORIES FOR THE UNITED STATES, IOWA AND COUNTIES, 1960-1970

	Des Moines	Henry	Lee	Louisa	Region	Iowa	United States
1960							
All Families:	11,938	4,553	11,121	2,771	30,383	711,716	
Under $ 3,000	16.1	29.5	21.7	29.7	21.4	25.3	21.4
$ 3,000- 3,999	9.1	12.8	11.3	18.0	11.3	11.2	9.5
4,000- 6,999	39.6	32.7	38.5	32.7	37.5	35.9	34.0
7,000- 9,999	21.9	15.4	17.8	11.3	18.4	16.9	20.1
10,000-14,999	9.9	6.9	7.4	6.5	8.2	7.5	10.5
15,000-24,999	2.3	2.1	2.1	1.3	2.1	2.3	3.3
$25,000 and up	1.1	0.6	1.2	0.5	1.0	0.9	1.3
1970							
All Families	12,369	4,801	11,078	2,808	31,056	717,776	
Under $ 3,000	8.2	9.7	9.8	11.3	9.3	10.1	10.3
$ 3,000- 3,999	4.8	5.6	5.8	6.0	5.4	5.4	4.9
4,000- 6,999	17.5	19.2	16.4	18.8	17.5	18.8	16.9
7,000- 9,999	22.0	21.8	25.4	24.4	23.4	22.9	20.6
10,000-14,999	30.6	28.5	28.2	28.2	29.2	26.6	26.6
15,000-24,999	14.0	12.9	11.7	9.3	12.6	12.8	16.0
$25,000 and up	2.8	2.3	2.8	2.0	2.7	3.5	4.6

Source: U.S. Census of Population.

Median School Years Completed

The median years of education for all persons in Iowa for 1970 was 12.2; for black and other minority groups it was 11.3 years.

In the category of all persons, the region compares favorably with state levels of attained education. With respect to black and other minority groups, the region does not compare favorably with state averages of educational attainment (see Table 3-14).

Another measure of educational attainment is the percent of persons holding high school or college experience of those persons 25 years or older (see Appendix Tables 3-5 and 3-6). From Appendix Table 3-8, a simple calculation shows the regional proportion of high school degrees in this age class is 38.2 percent with the equivalent state figure at 38.7 percent. In terms of college level experience for persons 25 years or older, the regional proportion is 20.8 percent and the state figure is 20.2 percent. Further, the education attainment for females is higher than males, but in the same ratio and level as the state for this age group.

Table 3-14
MEDIAN SCHOOL YEARS COMPLETED BY SEX AND RACE, 1970

	All Persons[1]		Black		Spanish[2]	
	Male	Female	Male	Female	Male	Female
Des Moines County	12.2	12.2	9.9	10.4	12.0	N.A.
Henry County	12.2	12.3	N.A.	N.A.	N.A.	N.A.
Lee County	12.1	12.2	9.6	11.3	8.9	9.0
Louisa County	12.1	12.4	N.A.	N.A.	N.A.	N.A.
Burlington	12.2	12.2	9.9	10.4	N.A.	N.A.
Fort Madison	12.1	12.2	8.6	N.A.	8.7	8.5
Keokuk	12.2	12.1	9.6	9.9	N.A.	N.A.
State of Iowa	12.2	12.3	10.8	11.0	12.1	12.1

[1]No figures are available for whites only. The percentage of non-whites is so small as to not substantially change the figures for whites as compared to total figures.

[2]Data are only available for counties and places with 400 or more persons of Spanish language.

N.A. - Not available.

Source: U.S. Census of Population.

4.
LABOR FORCE, EMPLOYMENT, AND OCCUPATIONAL TRENDS

This chapter identifies significant changes in employment throughout the region and the counties as they relate to age, sex, occupation, and minority groups. It also presents an analysis of worker commuting patterns who are entering or leaving Iowa counties (intrastate) and commuter traffic in and out of Iowa, Illinois, and Missouri (interstate). Wage rates (Appendix Table 4-1) and trends in employment and unemployment are also presented.

SUMMARY AND FINDINGS

1. Major employment fluctuations occurred in the decade from 1960 to 1970 (measured by place of work). These employment shifts can be linked primarily to changes in manufacturing employment, especially the rapid buildup and curtailment activities at the Iowa Army Ammunition Plant. Although ordnance employment is not disclosed in the Census of Business, it is reasonable to assume that the curtailment caused substantial employment alterations.

2. Unemployment rates as reported by the Iowa Employment Security Commission (IESC) are probably lower than would otherwise be the case if national standards for reporting were used. For example, IESC figures do reflect changes in employment levels at the ordnance plant. These cyclical unemployment rates dropped, indicating a rapid (less than one year) reemployment of released government workers. Gains in non-ordnance manufacturing employment show that such workers apparently found employment in other areas. Other causes of unemployment in the region included such factors as a drop in the number of farm workers, farm managers, and retail sales personnel, as well as declines in other specific industries.

3. More so than other parts of Iowa, manufacturing dominates the regional employment picture and further growth is slowly occurring in this area.

4. As in the state and the nation, females are increasingly a factor in the civilian labor force. The labor participation rates[1] for females over 20 years of age in the counties of the region equal the national figures in most cases. Overall labor participation for both sexes is lower than in the nation, and rates for young males are dramatically lower than recent national participation figures. This is probably a function of two forces: (a) about one-half of all households need two employees part or full time to sustain a living income thus necessitating females in the labor force and (b) the nature of employment opportunities in the region attracts females.

5. A major decline was observed in farm employment, thus continuing a long-established trend stemming from improved agricultural technology. Declines in other occupations included salespersons, household workers, and unskilled laborers. Increases were observed in the professions, technical skills, and in skilled labor.[2] This is not surprising, since major manufacturing capital growth has occurred in the region and the area is steadily industrializing from what was once an agricultural economy with trade cities along the Mississippi River.

6. Workers in the region appear to be commuting from long distances (25 to 40 miles) to places of employment. There are several reasons for this. Wages are fairly high, causing persons in the hinterlands to drive to work but still maintain their original place of residence. Further, the secondary road system in the region and the state is excellent, thus permitting rapid travel from remote areas to the cities.

7. Historically unemployment rates appear low in comparison to similar military base closings even during periods of major IAAP-AEC cutbacks (see Appendix Table 4-6). A four percent unemployment figure is normally accepted as a necessary base level to accomplish job transfers and seasonal unemployment. Since unemployment in Iowa was around 2.5 percent in the late 1960s and early 1970s with the participation rate below national levels, the unemployment figures are possibly misleading. Unemployment figures do not measure underemployment.

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[1] Labor participation rates are computed by dividing the civilian labor force, 16 years and older by the civilian population 16 years and older.

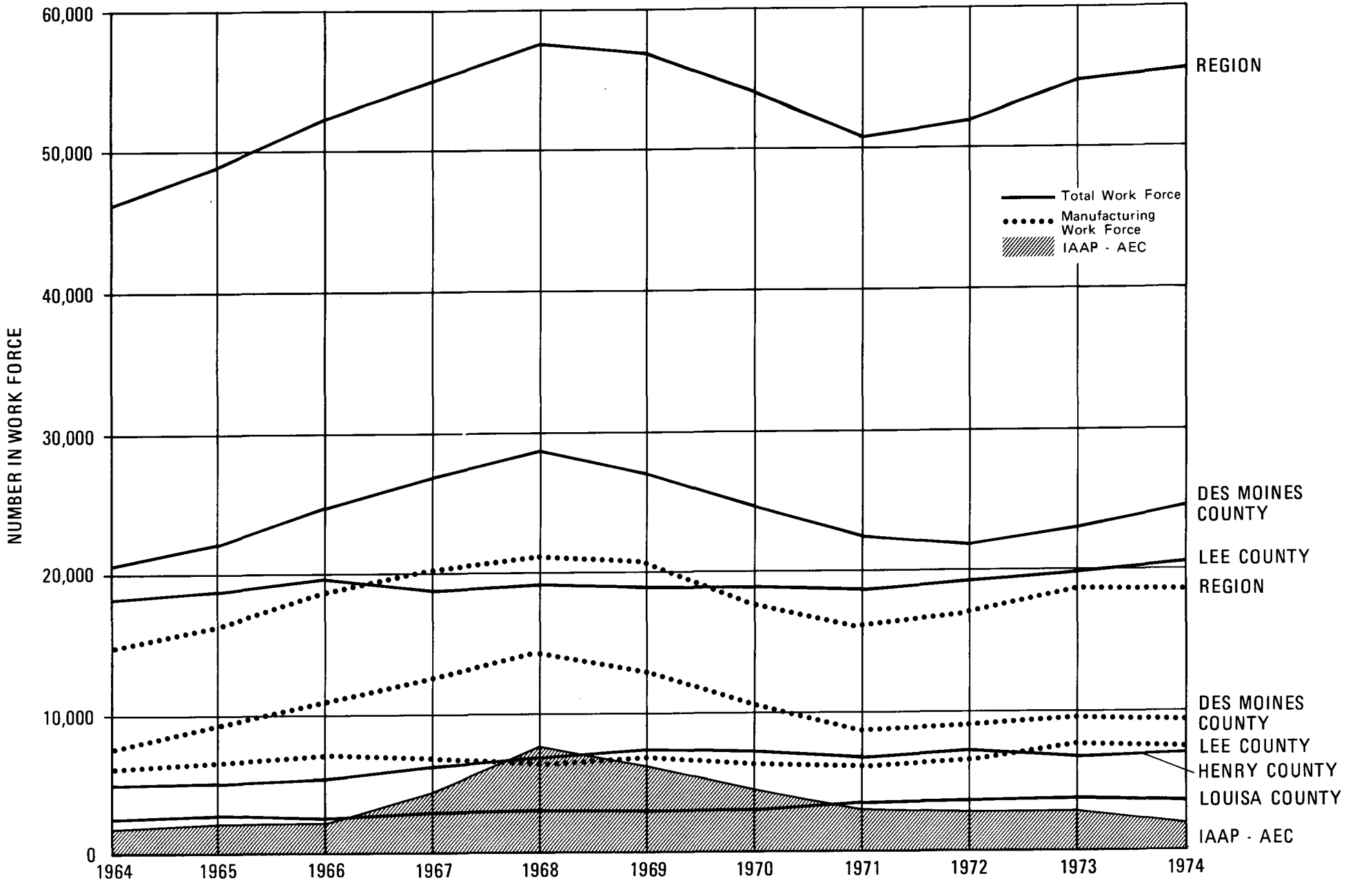
[2] While occupational declines may be occurring in the retail sales area, sector employment gains may occur at the same time. For example, retail trade employment is increasing while salespersons as a portion of this employment are declining. Further, occupational classes are reported by place of residence while employment is measured by place of work by the census.

8. Labor productivity and skills are very high for the area, and labor organization is low. Personal income and educational attainment for the region are high. Only the Spanish-Americans and blacks educational attainment is below state levels, thus suggesting a particular target accomplishment of future actions.

EMPLOYMENT AND OCCUPATION TRENDS

It is apparent that employment (as measured by place of work) has been increasing in the region over the period 1964 to 1974 (see Figure 4-1 and Table 4-1). Fluctuations in work force caused by shifts in ordnance plant workers are evident in the data. There was a large increase in the regional work force from 1964 to 1967. This was caused in large part by the increase in manufacturing employment in Des Moines County. Ordnance manufacture is classified as manufacturing employment. It should be noted that much of this employment represents commuting workers who did not live in the region but are reported in the employment figures as working in the region. For example, 700 persons commuted from Ottumwa to the ordnance plant in 1968.

Discounting the effects of fluctuations in the operations of the Atomic Energy Commission/Iowa Army Ammunition Plant, the region has experienced a gradual increase of employment. For example, a gradual 16.7 percent increase (7,751 workers) occurred in total employment (1964-1973) while population grew at a rate of 1.3 percent over the 1960-1970 decade. A major contributing factor was the increase in Des Moines County total employment (13.0 percent or 2,690 workers). Together, Des Moines and Lee Counties accounted for 55.6 percent of the regional growth in employment from 1964 to 1973 while Louisa and Henry Counties accounted for 44.4 percent. The ratio of growth in manufacturing employment to non-manufacturing employment in the region over this period indicates that manufacturing employment constituted 54.1 percent (4,192 workers) of the growth and non-manufacturing constituted the balance or 45.9 percent (3,559 workers) of the growth. In 1972, the direct regional ratios were 32.9 percent manufacturing and 67.1 percent non-manufacturing. The comparable figures for the State of Iowa show a 1972 ratio of manufacturing to non-manufacturing employment of 30.5 percent to 69.5 percent indicating that the region possessed a slightly higher percent of manufacturing employees than the state. Further, the trends indicate that manufacturing employment growth in the region (28.5 percent, 1964-1973) is continuing to dominate non-manufacturing employment growth (11.2 percent, 1964-1973). Within the manufacturing sector, there appears to be a shift from the manufacture of ordnance (based on Office of Economic Adjustment figures since the census does not report this category) to the manufacture of chemicals and allied products, printing and publishing, fabricated metal products, transportation equipment, and food and kindred products. In the non-manufacturing sector, agricultural workers accounted for the low growth due to declines in this area.



SOURCE: IOWA EMPLOYMENT SECURITY COMMISSION, COUNTY BUSINESS PATTERNS AND BARTON-ASCHMAN ASSOCIATES, INC.

WORK FORCE TRENDS BY COUNTY AND REGION 1964 - 1974

Figure 4-1

Table 4-1
MANUFACTURING AND TOTAL WORK FORCE[2] BY COUNTY AND REGION--1964-1974

	1964	1965	1966	1967[2]	1968	1969[2]	1970	1971[2]	1972	1973	1974
Des Moines County											
Total	20,660	22,260	24,820	26,940	28,700	27,830	24,680	22,470	22,330	23,350	25,044
Manufacturing	7,950	9,090	10,890	12,620	14,080	12,910	10,630	9,020	9,270	9,860	9,643
Henry County											
Total	(5,447)	(5,402)	(5,830)	(6,550)	(6,664)	(7,054)	7,230	7,250	7,470	7,580	7,591
Manufacturing	(450)	(307)	(574)	(663)	(679)	(732)	600	730	760	910	1,107
Lee County											
North Lee	8,530	8,600	8,850	9,236	9,750	9,450	9,130	8,850	9,170	10,218	11,205
South Lee	9,480	9,730	10,230	9,410	9,440	9,660	9,670	9,600	9,670	9,727	9,059
Total	18,010	18,330	19,080	18,646	19,190	19,110	18,800	18,450	18,840	19,945	20,264
North Lee	2,560	2,640	2,820	2,980	2,890	3,170	2,830	2,750	3,120	4,002	4,169
South Lee	3,650	3,920	4,220	3,690	3,600	3,670	3,470	3,420	3,610	3,763	3,140
Manufacturing	6,210	6,560	7,040	6,670	6,490	6,840	6,300	6,170	6,730	7,765	7,309
Louisa County											
Total	(2,367)	(2,916)	(2,826)	(3,000)	(3,297)	(3,352)	3,230	3,270	3,300	3,360	(3,400)
Manufacturing	(113)	(250)	(226)	(257)	(295)	(318)	390	390	380	380	(400)
Region											
Total	(46,484)	(48,908)	(52,556)	(55,136)	(57,851)	(57,346)	53,940	51,440	51,940	54,235	(56,299)
Manufacturing	(14,723)	(16,207)	(18,730)	(20,210)	(21,544)	(20,800)	17,920	16,310	17,140	18,915	(18,459)

[1]Work force is measured by place of work while labor force is measured by place of residence.

[2]IESC bench mark years--100 percent employer surveys.

SOURCE: Unbracketed figures from Iowa Employment Security Commission and bracketed figures estimated by Barton-Aschman Associates, Inc. from County Business Patterns.

Since 1960, the region has experienced a growth in the percentage of females in the civilian labor force (reported by place of residence). This trend has paralleled that of the State of Iowa and the nation. The region experienced zero percent change of the male labor participation rate for 1960 and 1970 (76 percent), while female participation rates increased from 34 percent to 43 percent (see Appendix Table 4-2). Reviewing the 1960-1970 labor participation rates, it appears that labor participation by sex and by county does not vary greatly from state figures. However, labor participation rates in Iowa and the region are notably lower than in the nation. The 1970 figures for the region were 43 percent for females and 76 percent for males. Female participation is nearly equal to the nation (66.3 percent for females and 81.1 for males) and male participation lags behind. Unemployment figures indicated that a high number of females reported being unemployed, when the census of population was taken for 1970 (4.6 percent) than in 1960 (3.1 percent). It is evident that the labor participation rates for males from age 24 to 64 is very high--over 90 percent in most cases. Labor participation for young males is well below the national average (from 75 to 85 percent) for this group. The regional participation rates range around 50 to 70 percent for young males. Male participation rates in the counties of the region do not parallel national participation rates under ages 22-24. The female participation rate climbs rapidly until age 21 at which time it starts to descend. The female rate recovers and starts to climb in the 35-44 age bracket, and averages around 50 percent in most counties in the region. This trend is normal and reflects child-rearing activities and their effect on the female labor force. After age 20, female participation rates equal or exceed comparable national figures. Below age 20, they are lower than national figures (see Appendix Table 4-3).

Table 4-2 indicates the 1960-1970 shifts in reported occupational classifications. In reviewing regional totals and the percent increases over the 1960 base for each occupational classification, the following trends can be observed:

-- Professional, technical, and kindred occupations rose by 40 percent in the 1960-1970 decade, reflecting an increased need for professionals (such as lawyers, architects, engineers, and doctors) and technical employees (such as data processors, testing personnel, designers, etc.) in an industrializing area.

-- All farm occupations grouped together (farmers, farm managers, farm laborers, and foremen) dropped 35 percent over the decade, reflecting the further technological advancements in farming and larger farm sizes.

-- The managers, officials, and proprieters group of occupations rose by 30 percent, indicating a generally higher demand for such occupational skills.

Table 4-2
MAJOR OCCUPATIONAL GROUPS BY SEX AND COUNTY, 1960-1970

	1960						1970					
	Number			Percent			Number			Percent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
DES MOINES COUNTY												
Total Employment	17,633	11,669	5,964	100.0	100.0	100.0	19,201	11,652	7,549	100.0	100.0	100.0
Professional, Technical and Kindred	1,699	950	749	9.6	8.1	12.6	2,377	1,278	1,099	12.4	11.0	14.6
Farmers, Farm Managers	1,036	995	41	5.9	8.5	0.7	694	689	5	3.6	5.9	.07
Farm Laborers and Foremen	242	197	45	1.4	1.7	0.8	118	102	16	0.6	0.9	0.2
Managers, Officials, and Proprietors[1]	1,365	1,193	172	7.7	10.2	2.9	1,716	1,414	302	8.9	12.1	4.0
Clerical and Kindred Workers	2,358	809	1,549	13.4	6.9	26.0	2,971	749	2,222	15.5	6.4	29.4
Sales Workers	1,357	866	491	7.7	7.4	8.2	1,114	603	511	5.8	5.2	6.8
Craftsmen, Foremen and Kindred	2,678	2,596	82	15.2	22.2	1.4	2,902	2,702	200	15.1	23.2	2.6
Operatives and Kindred	3,316	2,131	1,185	18.8	18.3	19.9	4,078	2,531	1,547	21.2	21.7	20.5
Private Household Workers	384	8	376	2.2	.07	6.3	245	6	239	1.3	.05	3.2
Service (Excluding Private Household)	1,576	643	933	8.9	5.5	15.6	2,242	915	1,327	11.7	7.9	17.6
Laborers (Except Farm and Mine)	691	657	34	3.9	5.6	0.6	744	663	81	3.9	5.7	1.1
Occupation Not Reported	931	624	307	5.3	5.4	5.1						
HENRY COUNTY												
Total Employment	6,672	4,588	2,084	100.0	100.0	100.0	7,448	4,573	2,875	100.0	100.0	100.0
Professional, Technical and Kindred	625	319	306	9.4	7.0	14.7	1,029	451	578	13.8	9.9	20.1
Farmers, Farm Managers	1,246	1,220	26	18.7	26.6	1.2	817	811	6	11.0	17.7	0.2
Farm Laborers and Foremen	162	146	16	2.4	3.2	0.8	174	154	20	2.3	3.4	0.7
Managers, Officials, and Proprietors[1]	452	405	47	6.8	8.8	2.3	680	564	116	9.1	12.3	4.0
Clerical and Kindred Workers	703	230	473	10.5	5.0	22.7	1,034	246	788	13.9	5.4	27.4
Sales Workers	431	282	149	6.5	6.1	7.1	369	196	173	5.0	4.3	6.0
Craftsmen, Foremen and Kindred	727	711	16	10.9	15.5	0.8	878	837	41	11.8	18.3	1.4
Operatives and Kindred	757	547	210	11.3	11.9	10.1	1,087	721	366	14.6	15.8	12.7
Private Household Workers	186	4	182	2.8	.09	8.7	144	11	133	1.9	0.2	4.6
Service (Excluding Private Household)	780	276	504	11.7	6.0	24.2	960	331	629	12.9	7.2	21.9
Laborers (Except Farm and Mine)	207	192	15	3.1	4.2	0.7	276	251	25	3.7	5.5	0.9
Occupation Not Reported	396	256	140	5.9	5.6	6.7						
LEE COUNTY												
Total Employment	15,658	10,640	5,018	100.0	100.0	100.0	15,918	10,265	5,653	100.0	100.0	100.0
Professional, Technical and Kindred	1,422	768	654	9.1	7.2	13.0	1,939	1,039	900	12.2	10.1	15.9
Farmers, Farm Managers	1,252	1,209	43	8.0	11.4	0.9	744	732	12	4.7	7.1	0.2
Farm Laborers and Foremen	263	239	24	1.7	2.2	0.5	165	135	30	1.0	1.3	0.5
Managers, Officials, and Proprietors[1]	1,248	1,090	158	8.0	10.2	3.1	1,503	1,285	218	9.4	12.5	3.9
Clerical and Kindred Workers	2,050	667	1,383	13.1	6.3	27.6	2,292	512	1,780	14.4	5.0	31.5
Sales Workers	1,115	626	489	7.1	5.9	9.7	808	428	380	5.1	4.2	6.7

Source: U.S. Census of Population.

[1] Excludes Farm Managers.

Table 4-2
MAJOR OCCUPATIONAL GROUPS BY SEX AND COUNTY, 1960-1970 (Cont'd.)

	1960						1970					
	Number			Percent			Number			Percent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Craftsmen, Foremen and Kindred	2,086	2,032	54	13.3	19.1	1.1	2,402	2,299	103	15.1	22.4	1.8
Operatives and Kindred Workers	2,937	2,096	841	18.8	19.7	16.8	3,275	2,285	990	20.6	22.3	17.5
Private Household Workers	401	18	383	2.6	0.2	7.6	192	-	192	1.2	-	3.4
Service (Excluding Private Household)	1,444	700	744	9.2	6.6	14.8	1,838	839	999	11.5	8.2	17.7
Laborers (Except Farm and Mine)	853	819	34	5.4	7.7	0.7	760	711	49	4.8	6.9	0.9
Occupation Not Reported	587	376	211	3.7	3.5	4.2						
LOUISA COUNTY												
Total Employment	3,855	2,871	984	100.0	100.0	100.0	4,034	2,658	1,376	100.0	100.0	100.0
Professional, Technical and Kindred	309	169	140	8.0	5.9	14.2	339	174	165	8.4	6.6	12.0
Farmers, Farm Managers	1,020	1,004	16	26.5	35.0	1.6	572	562	10	14.2	21.1	0.7
Farm Laborers and Foremen	312	275	37	8.1	9.6	3.8	78	78	-	1.9	2.9	-
Managers, Officials and Proprietors (1)	216	192	24	5.6	6.7	2.4	357	292	65	8.8	11.0	4.7
Clerical and Kindred	265	42	223	6.9	1.5	22.7	466	103	363	11.6	3.9	26.4
Sales Workers	183	117	66	4.7	4.1	6.7	174	112	62	4.3	4.2	4.5
Craftsmen, Foremen and Kindred	392	384	8	10.2	13.4	0.8	558	500	58	13.8	18.8	4.2
Operatives and Kindred	505	378	127	13.1	13.2	12.9	782	582	200	19.4	21.9	14.5
Private Household Workers	74	-	74	1.9	-	7.5	51	-	51	1.3	-	3.7
Service (Excluding Private Household)	310	89	221	8.0	3.1	22.5	470	89	381	11.7	3.4	27.7
Laborers (Except Farm and Mine)	150	150	-	3.9	5.2	-	187	166	21	4.6	6.2	1.5
Occupation Not Reported	119	71	48	3.1	2.5	4.9						

Source: U.S. Census of Population.

(1) Excludes Farm Managers.

-- The clerical and kindred group rose by 26 percent, indicating a rising service industry in the area and clerical skills needed in industry.

-- Sales workers as a group declined by 20 percent over the decade, a reflection of the restructuring of the retail industry with the advent of discount stores, supermarkets, and central cashier outlets requiring fewer salespeople. The losses are generally in the male worker group as opposed to females, probably due to wage differentials between sales jobs and competing manufacturing jobs.

-- The craftsmen, foremen, and kindred group increased by 15 percent, reflecting a generally increased demand for skilled persons in the manufacturing sector.

-- Operatives and kindred employees rose by 23 percent with increases in all counties and both sexes. This reflects an increased demand for skilled workers in assembly fabrication, food handling, welding, and the like.

-- The group classified as household workers declined by 40 percent over the decade, reflecting both a trend in time-saving appliances and shifting household values.

-- The service occupations increased by 34 percent over the decade, indicating an increased need for real estate, insurance, and non-profit service employees.

-- Laborers as a group increased slightly by three percent, indicating a nearly static demand in this area.

The general trends in occupational shifts suggest that there is a greater demand for technical, professional, and skilled labor and a reduced demand for farmers, farm managers, unskilled laborers, household workers, and salespeople. These are similar to state and national trends for the same occupations.

COMMUTING PATTERNS

Throughout the region, certain urbanized areas have developed as employment centers. As such they offer more employment opportunities than the rural areas. Employees commute to these centers from rural areas or other centers for two reasons: (1) many employees live in rural areas (27 percent of the regional population resided in unincorporated areas in 1970, see Appendix Table 4-4), and these persons must commute to urbanized centers to seek most types of non-farm employment, and (2) many employees who live in urbanized areas commute to other centers to satisfy skill or wage requirements.

Information relative to the characteristics of commuting was obtained from two sources. One is the Census of Population and the other is the Iowa Employment Security Commission (IESC). Although the census information on commuting is incomplete and pertains only to 1970, this data is still useful for it gives some indication of the relative magnitude and direction of commuting throughout the region. Supplemental commuting information has also been developed by utilizing Iowa Employment Security Commission data which compares place of work to place of residence. This data attempts to provide another estimate of total commuting by county and to project net commuting volumes to 1974. Some key factors can be analyzed from the data.

Table 4-3 discloses that an increasing number of persons are working in counties that are not their reported county of residence and fewer are working in the county of residence. The "place of work not-reported" category tends to dilute the findings. However, trends appear pronounced in Henry County, Lee County, and, particularly, Louisa County. These counties appear to be exporting a significant percentage of their workers relative to their working resident populations.

Figure 4-2 indicates that Henry and Lee Counties export the greatest portion of their commuting workers to Des Moines County, while Louisa County exports its largest portion of commuters to Muscatine County. As for Des Moines County, its largest single group of out-commuters travels to Lee County.

Table 4-4 summarizes and compares the census and IESC commuting data presented in Appendix Tables 4-4 and 4-5. This table suggests that in 1974 Des Moines County imported approximately 5,300 employees while Henry County exported 769; Lee County imported approximately 1,500 while Louisa County exported 1,210. This data also discloses that Des Moines and Lee Counties are the only importers of labor within the region; and that Des Moines County attracts the largest number of commuting workers.

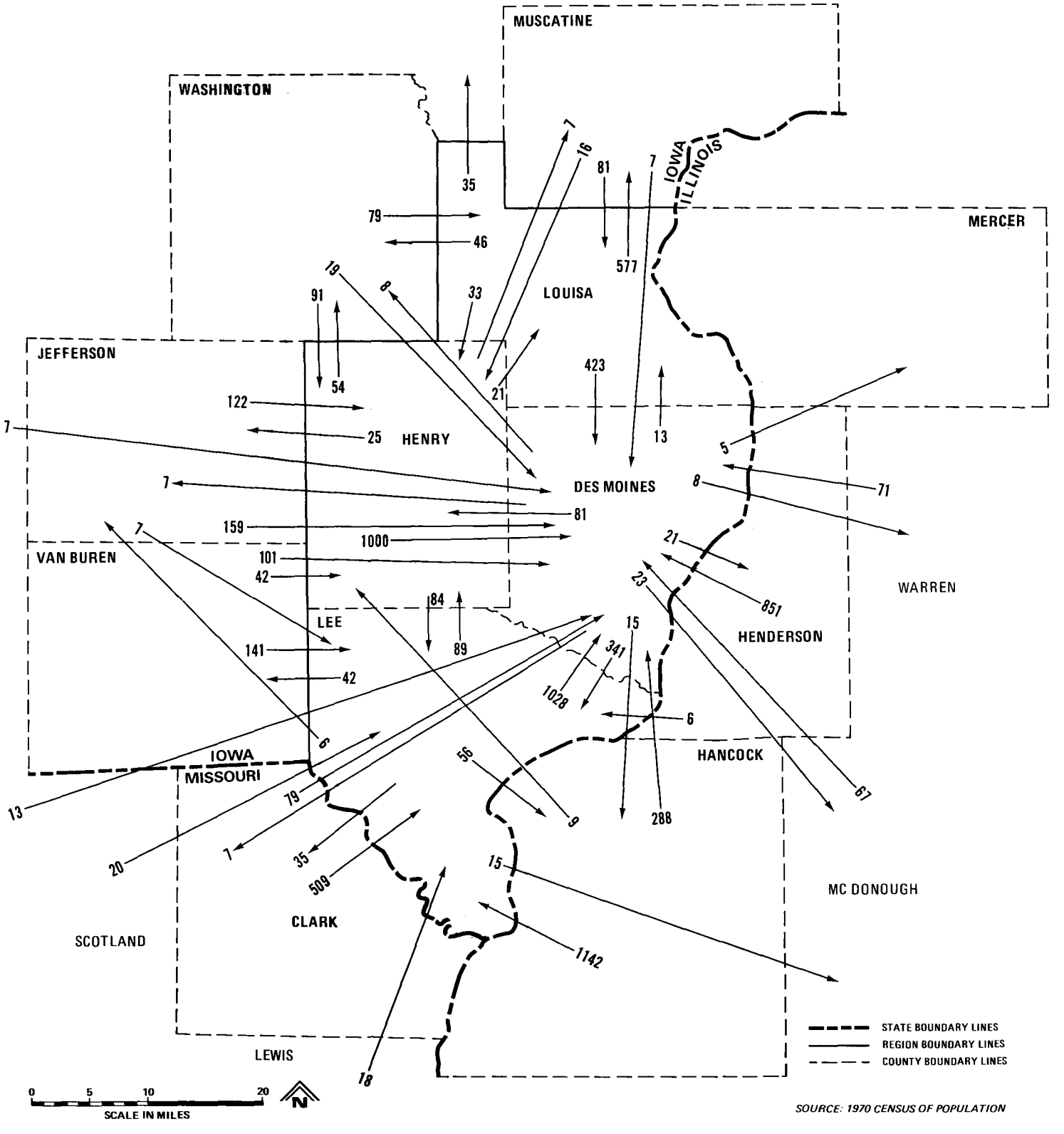
The data in Appendix Table 4-4 further suggests that in 1970 most workers commuted to Des Moines and Lee Counties from nearby counties. In Des Moines County workers commuted from Lee County (1,028 or 25 percent), Henry County (1,000 or 25 percent), Henderson County (Illinois--851 or 21 percent), Louisa County (423 or 10 percent), and all other counties (737 or 17 percent). In Lee County labor commuted from Hancock County (1,142 or 50 percent), Clark County (509 or 22 percent), Des Moines County (341 or 15 percent), Van Buren County (141 or six percent), and all other counties (154 or seven percent). Although this data is known to be incomplete, it does provide a basis of relative comparison among those counties that are discussed.

The Des Moines County commuting pattern indicates that in 1970 at least 2,451 employees (gross as opposed to net figures) commuted from the three regional counties (Lee, Henry, and Louisa) to Des Moines County. The number of employees are divided nearly evenly between the

Table 4-3
COMPARISON OF PLACE OF EMPLOYMENT TO PLACE OF RESIDENCE, 1960-1970

	1960		1970		Net
	Number	Percent	Number	Percent	Change
Des Moines County					
Worked in county of residence	15,908	91.7	17,279	89.7	- 2.0
Worked outside county of residence	466	2.7	845	4.4	+ 1.7
Place of work not reported	967	5.6	1,130	5.9	+ 0.3
Henry County					
Worked in county of residence	5,271	81.0	5,827	78.5	- 2.5
Worked outside county of residence	805	12.4	1,313	17.7	+ 5.3
Place of work not reported	427	6.6	280	3.8	- 2.8
Lee County					
Worked in county of residence	14,109	92.3	13,479	85.2	- 7.1
Worked outside county of residence	624	4.1	1,493	9.5	+ 5.4
Place of work not reported	554	3.6	844	5.3	+ 1.7
Louisa County					
Worked in county of residence	3,059	81.4	2,465	61.9	-19.5
Worked outside county of residence	597	15.9	1,182	29.7	+13.8
Place of work not reported	100	2.7	336	8.4	+ 5.7

Source: U.S. Census of Population.



MAJOR INTER-COUNTY COMMUTING PATTERN SOUTHEAST IOWA REGION

Figure 4-2

Table 4-4
NET COMMUTING PATTERNS BY COUNTY, 1970 AND 1974

Net Commutation of Iowa Counties		1970 Census	1970 IESC	1974 IESC
Des Moines County	Net In-commuting	+3,286	+5,220	+5,298
Henry County	Net Out-commuting	-794	-700	-769
Lee County	Net In-commuting	+794	+1,250	+1,448
Louisa County	Net Out-commuting	-964	-1,100	-1,210(1)

(1)1973 data.

Source: Iowa Employment Security Commission and Bureau of Census.

City of Burlington (56 percent) and the balance of the county excluding Burlington (44 percent). Within Des Moines County itself, however, employees who live and work in the county are divided much differently--74 percent of these employees work in the City of Burlington and 26 percent work outside the city. Presumably, many persons in outlying counties are employed (or were employed in 1970) at the AEC/IAAP facility or other industries in the West Burlington area such as the General Electric Company or the Midwest Biscuit Company.

As for Lee County, 1970 commuting patterns indicate that a minimum of 425 employees commuted from other regional counties (gross as opposed to net figures). Although indications are that the bulk of this in-commuting work force was employed within the corporate boundaries of Fort Madison, total county in-commuting in 1970 was divided evenly between Fort Madison and Keokuk. With expanded industrial development since that time, however, the Fort Madison share of the county's in-commuting work force has increased to approximately 55 percent.

Another perspective on commuting can be obtained from an analysis of ISES data which compares place of work to place of residence. The employee exporters within the region include Henry and Louisa Counties. Appendix Table 4-5 indicates that over the past five years Henry County has exported an annual average of 734 employees, or 12 percent of its work force, and Louisa County has exported an average of 1,147 employees a year, or 36 percent of its work force. In order of magnitude, Louisa County continues to export the largest percentage of available work force to other counties. On the other hand, a downward percentage shift probably has occurred in Henry County since 1970, due to job expansions in the Mount Pleasant area.

Because of the size of the counties and the existence of several separate employment centers, each located in separate counties, commuting distances are long. The limtied number of river crossings further adds to the distance a commuter must travel. No exact average commuter distance can be established, but many travel 25 to 40 miles each way to work.

UNEMPLOYMENT

As a general long-range trend, unemployment in the region, like the state, has been well below national rates (see Appendix Tables 4-6 and 4-7). Annual average unemployment indicates an increase due to cutbacks at the IAAP and plant closures. These rates exceeded state figures for 1970, 1971, and 1972. The publication, *Report of Community Visit*, prepared by the OEA, correlates IAAP cutbacks to monthly unemployment figures. This analysis indicates that the unemployed are absorbed at reasonably rapid rates. The regional unemployment rates (for 1973 and 1974) are very low when compared to national figures. Unemployment in the region generally settles down to less than three percent when major unemployment caused by cutbacks is given time to adjust. Industrial surveys conducted in August, 1974, suggest that there is a tight labor supply in most areas of the region. This supports the low rate of unemployment in the later months of 1974.

Appendix Table 4-8 gives an additional breakdown of unemployed persons for Des Moines County only because data for other counties is not available. This data reveals that male and female unemployment is nearly equal in percentage; the unemployed are predominately younger (in 1974, 86.3 percent were under 44 years of age); nearly all were white (in 1974, 97.0 were white and three percent were black or other minority groups). However, the percentage of black unemployment was higher than white unemployment; and the handicapped and poor constituted nearly one-fourth of all unemployed (together equaling 23.9 percent in 1974).

Appendix Table 4-9 reveals that major increases in unemployment by occupation included the following: (1) operatives both male and female; (2) professional, technicians, and managers, both male and female; and (3) service groups--females only. The most dramatic finding is the change in the ratio of males to females in the ranks of unemployed over the decade. The male-to-female ratio shifted from 1.64 in 1960 to .55 in 1970. This is indicative of the increased desire for females to participate in the labor force and inability of the local economy to absorb such females. These ratios as measured by the Census do not agree with IESC figures which show a new 50-50 split in unemployment by sex. The Census figures give a more accurate trend analysis. Appendix Table 4-10 reveals the reported skills of the unemployed for Des Moines County only as other counties were not reported. The IAAP cutbacks account for much of the available skills of the unemployed as reported by the IESC. Such skills are reported by the last known job of the unemployed person.

LABOR PRODUCTIVITY

Labor interviews with area employers were conducted in August, 1974. A major factor in making the areas

desirable for business and industry, was the labor force attitude and productivity. It has been well known in the manufacturing sector that Iowa is a good labor state as reflected in labor productivity, willingness to work overtime, lower labor organization levels, and good assembly and manufacturing skills. The productivity data in Appendix Table 4-11 indicates that the region has a rating comparing favorably with the state over this period.

In addition, local employers noted that labor was easily trained, eager to learn, willing to commute, and possessed a trait called *ingenious in solving problems*. These factors are not quantifiable but are, nevertheless, very important.

5.
MAJOR ECONOMIC SECTORS OF SOUTHEAST IOWA

Today, Southeast Iowa represents a region in which a traditional agricultural and durable goods manufacturing base is slowly expanding to one embracing all the major economic sectors of the national economy. The evidence of this change is new retail shopping areas, the new capital facilities of major national manufacturers, and the expanding array of local services available to industry and the public.

The transition to a diversified economic system has not occurred quickly (see Figure 5-1 which shows percent of personal income[1] by major source for the region). In 1929, the major portion of personal income (52 percent) was due to wages and salaries paid by manufacturing, agricultural, and retail trade employment. During that year, 27 percent of personal income in the region resulted from proprietor or owner operations. Of this amount, the largest component of proprietor income resulted from the farm sector. As indicated in Figure 5-1, only three percent of the personal income was due to transfer and interest payments received from the government.

During the intervening 43 years, personal income by wages and salaries has increased by only six percent (from 52 to 58 percent) while proprietor income dropped by 13 percent (from 27 to 19 percent), reflecting a slow transition from farm ownership to non-ownership employment. A portion of this 10 percent decline in farm proprietor income between 1929-1972 has been compensated by the increase in government transfer payments (e.g., Social Security and U.S. Department of Agriculture subsidies) from three to 11 percent. The result of this evolving pattern on per capita income for the region has been to increase the 1929 figure from $579 per person to the 1971 figure of $4,148 for an annual incremental increase of 12.5 percent (see Table 5-1). The annual increase in personal income for the region has been higher than similar gains experienced at both the state and national level, owing to the convergence of many national economic trends with respect to personal income growth in the region.

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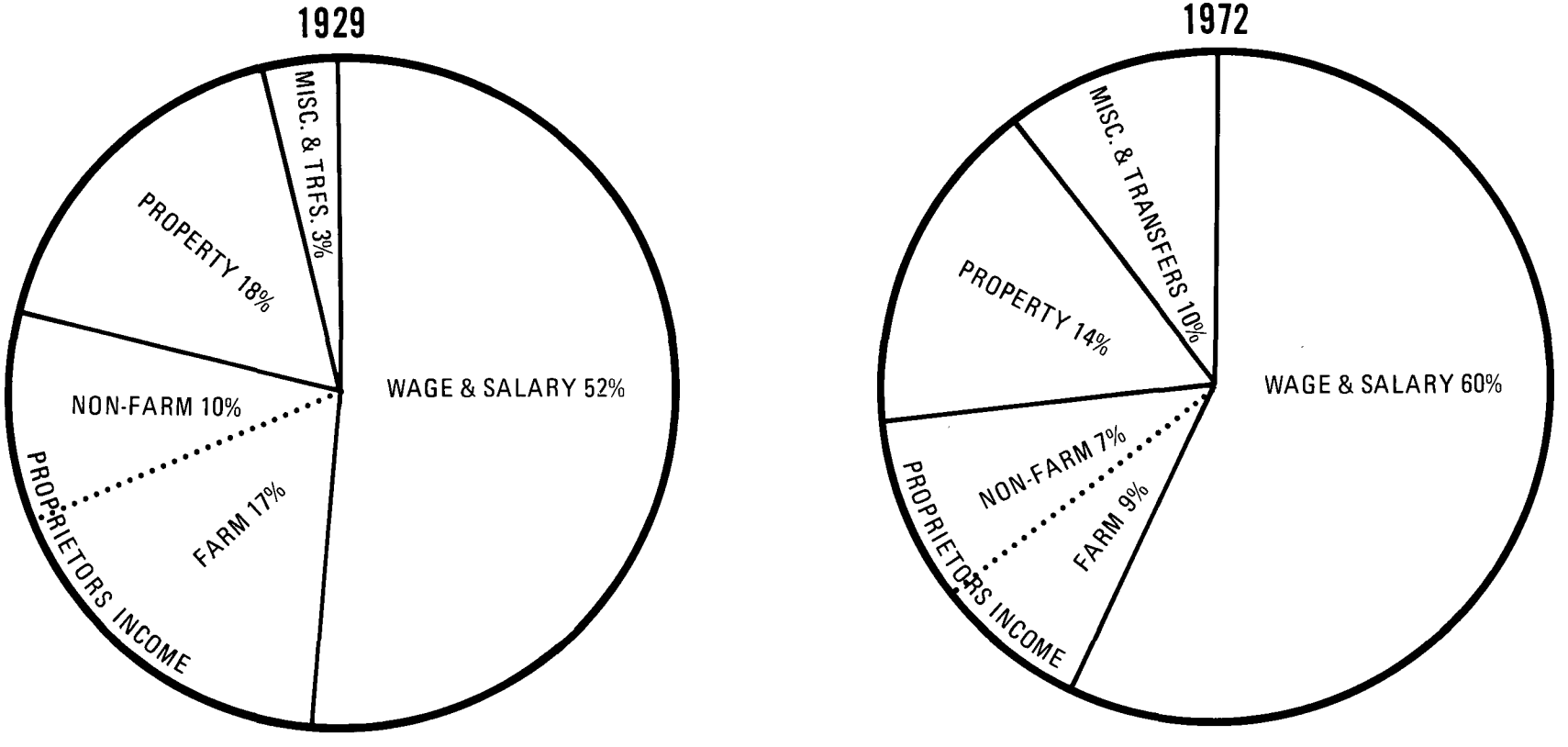
[1]Personal income is the income earned by the productive factors of an economy: land, labor, capital, and proprietors. Personal income also includes transfer and interest payments received from government. As such, personal income is often used as a measure to distinguish the general income gains of the public.



SOURCE: STATE OF IOWA, OFFICE FOR PLANNING AND PROGRAMMING AND BUREAU OF ECONOMIC ANALYSIS

PERCENT OF PERSONAL INCOME BY MAJOR SOURCE FOR REGION

Figure 5-1

Table 5-1
COMPARATIVE PERSONAL INCOME FOR THE REGION, STATE, AND NATION (PER CAPITA)

	1929	1950	1962	1971	Annual Percent Change 1929-1971
Region	$579	$1,428	$2,229	$4,148	12.5%
State of Iowa	566	1,441	2,070	3,866	11.8
Nation	705	1,496	2,370	4,157	9.9

Source: State of Iowa Office for Planning Programming.

A purpose of this chapter is to explore the relationships that exist within the various major economic sectors of the region. In this regard, the major trends that have affected the expansion and contraction of specific types of economic activity have been analyzed. The investigation of regional trends and major economic activity sectors has been based upon current employment, production, and sales data available through special censuses (e.g., Bureau of Census Manufacturing, Retailing, and Business), Iowa state reports, and discussions held with knowledgeable individuals from the four-county region.

As an economic unit, the Southeast Iowa region is affected by the following constraints on data collection:

1. The region is physically too small and the number of business and industrial establishments too few in various standard industrial classifications to allow for full information disclosure by the Bureau of Census. For example, the Census of Manufacturing does not disclose any data for the ordnance manufacturing facility of the Iowa Army Ammunitions Plant (IAAP).

2. The most recent economic statistical data from the Bureau of Census (e.g., 1972 Census of Manufacturing, Business, and Retailing) for various geographical areas has not been released and awaits publication. (Tentative projections for the publications and release of this material are for March, 1975.)

3. The available statistical information on business and industry from the federal census and Iowa state sources does not always give accurate employment pictures for each economic sector. Data must be assembled from a variety of sources reflecting the time periods in which the tabulations were made.

4. The economic region lacks a definitely strong central place that is responsible for providing the trade and service relationships for remote areas of the region. By federal economic forecasting standards, the Southeast Iowa region is under the trade dominance of two competing central places: Quincy, Illinois, and the Quad Cities area. (U.S. Department of Commerce, Bureau of Economic Analysis.)

It is apparent that the information supplied in this chapter represents only the beginning of a dynamic process that must continuously refine and analyze all available economic data for the region. This material should be updated by the various state and federal censuses to allow adequate public dissemination and discussion regarding future economic trends within the area.

SUMMARY AND FINDINGS

The following is a generalized summary of important economic factors identified in the analysis of data.

1. Generally, the regional economy, as indicated by employment statistics, is expanding at a slower rate than employment gains at the state level. Special significance should be noted for the manufacturing employment loss exhibited by South Lee County between 1972-1974.

2. While employment continues to expand in the majority of the economic sectors (except agriculture), the available labor supply is constricting within the region due to the out-migration of the 19 to 24 age group and the continued decline of school-age children.

3. To meet the demand for labor within the region, a greater amount of interstate and intercounty commuting is occurring over extended travel distances.

4. Agriculture will continue to represent a viable exporting (including international trade) sector of the regional economy. While not providing substantial employment opportunities, the export agricultural income will continue to raise personal income of farmers and the business associated with servicing the larger commercial farmer.

5. The manufacturing base will continue to expand at a slower rate for durable goods industries due to a constricting national economy. Additional growth opportunities will continue in the nondurable goods sector for expansion of firms providing basic necessities required for increased production efficiency.

6. The residentiary sector has the potential to expand at a faster rate than the major exporting industries. Retail and wholesale

trade, construction, services, and banking can provide additional business and employment opportunities if financing and business counseling is available to assist these pursuits.

7. Residential construction and financing will represent economic growth opportunities, once stabilization of national and regional mortgage and interest rates has occurred.

9. As larger national retail chains construct enclosed malls in the Quad Cities, Galesburg and Quincy, the region's existing retail centers will undergo increasing competition for the consumer purchase.

The major economic sectors comprising the system of regional economic activities and relationships are classified into two broad categories. The *export division* (e.g., agriculture and manufacturing) produces goods or services consumed outside the region, the *residentiary division* (e.g., government, retail and wholesale trade, services) provides goods or services consumed within the region. The two divisions complement each other in terms of activities and needs. In this chapter, the sectors within each division are described, while a more detailed discussion of relationships is provided in the economic forecast.

The economic sectors of the region have developed according to state and national trends. Some of these trends represent overt actions taken by government to stimulate criteria types of economic activities (e.g., investment tax credits, federal agricultural subsidies). The following discussions of the major regional economic sectors will identify those trends and place them in local perspective.

EXPORT DIVISION

Agricultural Sector

Agricultural production continues as a major economic sector in the economy even though the region is experiencing a decline in the amount of farms and the loss of agricultural employment opportunities. While this sector has been subject to the annual uncertainties of weather, disease, and the supply and demand relationships for agricultural products, the region (like the State of Iowa), has experienced strong agricultural indicator increases in income, land values, production, and commodity and livestock prices. Much of these increases can be traced to the following selected agricultural trends:

1. Strong domestic and foreign demand for agricultural products.

2. Increased technological sophistication and automation of the productive commercial farm that requires substantial investment annually.

3. Increased federal payments to commercial farmers through a variety of U.S. Department of Agriculture Programs.

4. Increasing disinterest among members of an aging farming industry to breed and raise livestock for market.

The farm proprietors who have remained in the business to take advantage of these trends have experienced several impacts as indicated in Table 5-2.

1. A continuing decline in the total farm units with compensating increases in the average size of the commercial farm unit. While Des Moines County dropped by 28 percent in total farm units between 1963 and 1972, the average size farm in the county increased by 42 percent.

2. Steadily improving agricultural production techniques and the emphasis on commodity farming due to the rapid increases in market prices have combined to increase the average yield per acre and, therefore, the income received by the farmer. Yield on corn production per acre for the four counties has increased from 29 to 37 percent between 1963 and 1972, while beef for market has declined by four percent.

3. With the decline in total farm units and the increased production per acre associated with the increase in farm products prices, the average market value per farm within the region increased from 40 to 68 percent in the value of goods sold between 1959-1969. These escalating market values have created higher farm income, allowing for greater reinvestments in land, equipment, and retail goods (see Table 5-3).

4. The largest gains in farm product sales occurred for those commercial farm units generating over $20,000 per year in sales. Of this group, those farms with sales of $40,000 or more, increased by 101 percent for the region. Conversely, those farm units that are probably supplying the initial part-time manufacturing or other form of full-time employment market consist of farm units reporting less than $10,000 (see Appendix Table 5-1).

The agricultural sector of the regional economy remains a viable export producer, even though the number of independent, smaller farm units is declining. For the farmer willing to incur the risks of weather and market fluctuations, the returns on investment are commensurate with the efficiency of production. The efficiency of Iowa farm production has consistently generated the highest net income per farm among Midwest states.[2] In the bountiful agricultural production year

[2]Iowa Development Commission, *1972 Statistical Profile of Iowa*, Des Moines, 1973, p. 8.

Table 5-2
SELECTED AGRICULTURAL CHARACTERISTICS OF THE REGION BY COUNTY, 1963-1972

m	Des Moines County				Henry County				Lee County			
	1963	1970	1972	1973	1963	1970	1972	1973	1963	1970	1972	1973
Population, Number, and Average Size												
Resident Population	4,786	3,732	NA	NA	5,023	4,076	NA	NA	6,351	5,293	NA	NA
Number of Farms	1,316	999	941	NA	1,463	1,137	1,130	NA	1,693	1,330	1,319	NA
Average Size (Acres)	171	228	244	NA	182	227	229	NA	182	225	227	NA
Percent Owned	58.1	52.2	NA	NA	61.6	60.0	NA	NA	71.8	76.3	NA	NA
Percent Rented	41.9	47.8	NA	NA	38.4	40.0	NA	NA	28.2	23.7	NA	NA
Commodity Production Per Acre (Bushels)												
Corn	96.1	93.6	124	114.6	86.1	84.5	117	103.3	82.8	75.3	111	108.4
Oats	50.7	53.1	62	41.8	43.4	46.7	57	41.7	40.0	40.8	50	34.3
Soybeans	33.9	38.0	39	31.0	32.6	37.0	39	33.0	30.0	32.7	34	31.0
Livestock Total												
Cattle (Beef)	8,221	15,400	10,800	12,800	9,024	16,300	13,300	15,200	8,583	17,500	13,100	12,300
Hogs	NA	97,600	81,000	NA	NA	146,300	130,000	NA	NA	119,100	105,000	NA

	Louisa County				State			
	1963	1970	1972	1973	1963	1970	1972	1973
Population, Number, and Average Size								
Resident Population	3,996	3,297	NA	NA	NA	520,131	NA	NA
Number of Farms	1,061	823	819	NA	170,030	135,264	132,610	NA
Average Size (Acres)	226	277	280	NA	203	249	254	NA
Percent Owned	54.8	51.5	NA	NA	51.4	52.8	NA	NA
Percent Rented	45.2	48.5	NA	NA	48.6	47.2	NA	NA
Commodity Production Per Acre (Bushels)								
Corn	86.1	87.4	118	110.5	81.1	85.8	110.6	108.0
Oats	47.6	50.4	56	40.9	44.7	54.2	56.9	48.0
Soybeans	29.8	35.9	36	31.0	30.4	32.5	35.9	34.0
Livestock Total								
Cattle (Beef)	7,237	11,400	9,000	9,800	996,331	3,997,000	1,770,000	1,820,000
Hogs	NA	111,700	90,000	NA	NA	17,894,900	14,200,000	NA

Table 5-3
MARKET VALUE OF ALL AGRICULTURAL PRODUCTS SOLD BY COUNTY AND REGION--1959, 1964, 1969

County	Year	Market Value of All Agricultural Products Sold		Average Per Farm		Crops Including Nursery Products, Hay and Forest Products		Livestock, Poultry, and Their Products	
		Dollars	Percent Change	Dollars	Percent Change	Dollars	Percent Change	Dollars	Percent Change
Region	1959	$62,131,323		$11,245		$14,927,467		$47,203,856	
	1964	67,435,379	8.5	13,723	22.0	24,505,377	64.2	42,903,129	- 9.1
	1969	89,654,043	32.9	20,525	49.6	30,097,597	22.8	59,556,446	38.8
Des Moines County	1959	$15,705,160		11,989		$ 4,185,126		$11,520,034	
	1964	17,144,386	9.2	14,480	20.8	6,693,223	59.9	10,449,699	- 9.3
	1969	21,543,803	25.7	21,246	68.2	7,855,769	17.4	13,688,034	31.0
Henry County	1959	$17,693,404		$11,602		$ 3,733,754		$13,959,650	
	1964	18,587,015	5.1	14,049	21.1	6,179,413	65.5	12,397,401	-11.2
	1969	25,528,537	37.3	20,925	48.9	8,001,636	29.5	17,526,901	41.4
Lee County	1959	$14,221,772		$ 9,047		$ 3,558,331		$10,663,441	
	1964	16,249,296	14.3	11,107	22.8	5,702,356	60.3	10,546,389	- 1.1
	1969	22,821,369	40.4	17,899	61.2	6,539,489	14.7	16,281,880	54.4
Louisa County	1959	$14,510,987		$12,933		$ 3,450,256		$11,060,731	
	1964	15,454,682	6.5	16,371	26.6	5,930,385	71.9	9,509,640	-14.0
	1969	19,760,334	27.9	23,003	40.5	7,700,703	29.9	12,059,631	26.8

Source: U.S. Census of Agriculture.

of 1972, the average farm in Iowa grossed $39,985 (up 25 percent over 1970) and netted to the farmer an income of $10,294 after operating expenses.[3] Applying these average values to the number of farm units within the Southeast Iowa region provides a cursory indication of the probable magnitude of farm income from this area (see Table 5-4). Applying those average values yields a projection that the region grossed over $168 million in realized farm income and yielded farmers approximately $43,327,446 in net income.

For those marginal farm unit owners and renters who can no longer compete effectively with other agricultural producers within the region, farming will become a part-time pursuit, supplemented by employment opportunities in the other sectors of the regional economy. For the remaining agricultural producers, commercial farming in Southeast Iowa will remain a visible exporting sector, providing additional income and employment benefits for the construction, retail, service, and banking sectors.

Manufacturing Sector

Manufacturing employment of all types in Iowa increased by 27 percent from 1962-1972--from 164,274 to 208,609 manufacturing employees (see Table 5-5). During a comparable time period, manufacturing employment by county within the region increased from five percent (Lee County) to as much as five times the 1962 employment level for that particular county (Louisa County). On the average, manufacturing employment increased by 21 percent for the region as indicated in Table 5-6.

Table 5-4
PROJECTED GROSS AND NET FARM INCOME FOR THE COUNTIES AND REGION (CALCULATED FOR 1972)

	Gross	Net
Des Moines County	$ 37,625,855	$ 9,686,654
Henry County	45,183,050	11,632,220
Lee County	52,740,215	13,577,786
Louisa County	32,747,715	8,430,786
Total:	$168,296,835	$43,327,446

[3]Office of Planning and Programming, *The Quality of Life in Iowa: An Economic and Social Report to the Governor*, Des Moines, 1972.

Table 5-5
NUMBER OF EMPLOYEES, MID-MARCH PAY PERIOD IN IOWA, 1962, 1972

	1962	1972	Percent Change
Agricultural Services, Forestry and Fisheries	3,306	3,086	-6.7
Mining	2,665	2,794	4.8
Contract Construction	21,951	32,934	50.0
Manufacturing	164,274	208,609	27.0
Transportation and Other Public Utilities	35,049	40,913	16.7
Wholesale Trade	44,329	49,447	11.5
Retail Trade	118,828	164,608	38.5
Finance, Insurance and Real Estate	32,453	44,924	38.4
Services	80,171	130,574	62.9
Unclassified Establishments	2,733	5,737	109.9
Total:	505,759	683,626	35.2

Source: County Business Patterns

Table 5-6
MANUFACTURING EMPLOYMENT CHANGE BY COUNTY AND REGION, 1962-1974

	1962		1972		1974	Percent Change for CBP	Percent Change for IESC
	IESC	CBP	CBP	IESC	IESC	1962-1972	1962-1974
Des Moines County							
Total Manufacturing	8,360	7,505	9,270	9,195	9,753	22.5%	16.6%
Durable Goods	7,270	6,669	8,290	8,274	8,477	24.1	16.6
Nondurable Goods	1,090	836	1,080	921	1,277	10.2	17.1
Henry County							
Total Manufacturing	NA	205	760	699	1,073	241.0	NAS
Durable Goods	NA	NA	NA	D	NA	NAS	NAS
Nondurable Goods	NA	NA	NA	NA	NA	NAS	NAS
Lee County							
Total Manufacturing	6,180	5,429	6,740	5,731	7,302	5.6	18.1
Durable Goods	2,680	NAS	2,760	NAS	3,323	NAS	23.9
Nondurable Goods	3,500	NAS	3,980	NAS	3,974	NAS	13.5
Louisa County							
Total Manufacturing	NA	57	380	358	NA	528.1	NAS
Durable Goods	NA	NA	NA	NA	NA	NAS	NAS
Nondurable Goods	NA	NA	NA	D	NA	NAS	NAS
Region							
Total Manufacturing	14,540	13,196	17,150	15,983	18,128	21.1	24.0
Durable Goods	9,950	NAS	11,050	NAS	11,800	NAS	NAS
Nondurable Goods	4,590	NAS	5,060	NAS	5,251	NAS	NAS

Source: County Business Patterns and Iowa Employment Security Commission.

D: Withheld to avoid disclosure of operations of individual reporting units.
NA: Not available.
NAS: Not ascertainable.

Historically, the manufacturing sector has played a major role in stabilizing the employment cycles of the agricultural sector. As shown in Figure 5-1, wages and salaries constituted 52 percent of personal income in 1929, much of which can be traceable to durable goods manufacturing in the region. At present, the percent of personal income due to wages and salaries has increased (five percent in 1972), as a result of the presence of national nondurable goods manufacturers who complement the older durable goods manufacturing base.

Durable goods manufacturing, as distinguished from nondurable includes items that are not readily consumed but can become part of a final production process (e.g., metal fabricated parts). Likewise, durable goods are items with extended service lives, often requiring a high price for purchase by the consumer (e.g., automobiles and major appliances). Within the Southeast Iowa region, the durable goods manufacturers produce the following generalized products:

-- Ordnance and accessories.

-- Lumber and wood products.

-- Furniture and fixtures.

-- Stone, clay, and glass products.

-- Primary metal products.

-- Fabricated metal products.

-- Machinery (except electrical).

-- Electrical equipment and supplies.

-- Transportation equipment.

Durable goods manufacturing provides approximately two-thirds of the 1974 region manufacturing total of 18,128. This heavy orientation toward durable goods manufacturing provides the direct benefit of higher employee incomes with the disbenefit of cyclical employment instability due to periodic shifts in market demand (see Table 5-6).

Nondurable goods manufacturing comprises less than 33 percent of regional manufacturing employment. Nondurable goods represent products which are consumed more rapidly and directly by the purchaser, thus creating a more ongoing demand for the product. Within the region, the nondurable manufacturers produce the following products:

-- Food and kindred products.

-- Printing and publishing.

-- Chemical and allied products.

-- Rubber and plastic products.

Nondurable goods manufacturing represents a stabilizing influence in cyclical swings in manufacturing employment owing to the built-in demand factor of short product life-spans. Generally, nondurable goods manufacturing requires a less-skilled employee who receives a lower-wage rate.

Due to the limited employment data relative to employment levels by standard industrial classifications within the region, a comparative index was developed which cross-tabulates numbers of reported industrial establishments to stated employment levels.[4] Within the durable goods manufacturing subsector for the region, the major employment concentration would appear to be in the following categories:

-- Stone, clay, and glass products.

-- Metal fabrication.

-- Machinery (except electrical).

-- Electrical equipment and supplies.

-- Miscellaneous manufacturing.

For the three industrial classifications where employment data is available, machinery and electrical equipment industries both lost employees (seven and four percent, respectively), between 1962 and 1972.

Table 5-7, on employment and number of industrial establishments within the nondurable subsector, identifies the following major industrial employment groups:

-- Food and kindred products.

-- Printing and publishing.

-- Chemicals.

Comparative employment time-period data is available for these major nondurable product groups, which indicates that the greatest employment

[4]For more information on employment by county and number of industrial establishments by standard industrial classification code (see Appendix Table 5-7).

Table 5-7
SUMMARY OF EMPLOYMENT AND NUMBER OF ESTABLISHMENTS WITHIN THE MAJOR STANDARD INDUSTRIAL CLASSIFICATION

SIC Industries	Employment 1962 (Percent)	Employment 1972 (Percent)	Percent Change In Employment 1962-1972	Establishments 1963	Establishments 1967
Durables					
19. Ordnance--Accessories	D	D		1	1
24. Lumber and Wood	NA	D		8	13
25. Furniture and Fixtures	559 (04)	D		4	2
26. Paper Allied Products	D	438 (03)		5	7
32. Stone, Clay and Glass Products	148 (01)	148 (01)	0	14	14
33. Primary Metals	D	NA		8	6
34. Fabricated Metals	248 (02)	D		10	8
35. Machinery (except electrical)	171 (01)	158 (01)	-07%	21	24
36. Electrical Equipment and Supplies	2,130 (16)	2,042 (13)	-04%	10	11
37. Transportation Equipment	NA	D		1	3
38. Rubber and Plastics	NA	D		3	3
39. Miscellaneous Manufacturing	NA	D		11	9
40. Petroleum and Coal	NA	D		2	2
				98	103
Non-durable					
20. Food and Kindred Products	1,322 (10)	1,188 (07)	-10%	31	27
27. Printing and Publishing	303 (02)	429 (03)	+41%	22	22
28. Chemical Products	627 (05)	1,151 (07)	+83%	13	10
29. Textile Mill Products	NA	D		4	1
30. Leather and Leather Products	NA	D		1	2
				71	62
Total:	13,196 (100)	15,983 (100)	+21%	Total: 169	165

Source: County Business Patterns. U. S. Census of Business

D: Denotes figure withheld to avoid disclosure of operations of individual reporting units.

NA: Not Available.

gain has occurred in the chemical and printing categories (83 and 41 percent, respectively), while employment in food and kindred products declined (10 percent) during this period (note: the recent addition of Armour-Dial in Ft. Madison might have altered this employment assessment).

Combining the employment data for the two manufacturing subsectors shows that manufacturing employment within the region has increased from 14,540 to 18,128 for a 24 percent increase between 1962 and 1974. The regional employment growth in this sector can be attributed to several factors:

1. The addition of major national industrial establishments to the manufacturing base of the region.

2. The continued expansion of existing industrial establishments at a faster rate than the region has lost older and marginal manufacturing establishments.

3. The continuing supply of the favorable industrial development variables--labor, materials, energy, land, and a progressive local government attitude toward industry.

4. The continuing expansion of the manufacturing sector of the national economy and the desire of national corporations to centralize manufacturing facilities in eastern Iowa to allow for greater accessibility to a growing national and mid-american market.

In contrast to the manufacturing employment growth, exhibited by the region and by the total countywide employment figures, is the decline in manufacturing employment registered by South Lee County from 1962 to 1974 (see Table 5-8). While North Lee County (Ft. Madison) has expanded in manufacturing employment by 1,430 employees (or a 52-percent increase), South Lee County (Keokuk) has declined by 315 employees (or a nine-percent decrease). The majority of employment loss within South Lee County occurred between 1970-1972 when total manufacturing decreased from 3,610 to 3,135 employees for a 13-percent decline. It is apparent that this significant decline resulted from the closure of major employers in Keokuk whose resources became too costly for continued production.

Intra-regional manufacturing growth has occurred in various counties during different time periods. From 1958 to 1963, the major portion of the manufacturing growth was concentrated in Lee and Des Moines Counties.

Table 5-8
MANUFACTURING EMPLOYMENT COMPARISON OF NORTH AND SOUTH LEE COUNTY

	1962	1974	Percent Change
North Lee County			
Total Manufacturing	2,730	4,164	52.0%
Durable Goods	1,700	2,448	44.0
Nondurable Goods	1,030	1,718	66.0
South Lee County			
Total Manufacturing	3,450	3,135	-09.0
Durable Goods	980	880	-10.0
Nondurable Goods	2,470	2,256	-08.0

Source: Iowa Employment Security Commission

As indicated in Table 5-9, Lee County in 1958 was the most industrialized of the four counties, generating over $11,000 per employee in value-added[5] to $8,784 for Des Moines County. In 1963, Des Moines County employee productivity increased by 46 percent, indicating a substantial escalation of employment and total value-added during the production process. In comparison, productivity per employee[6] in Lee County increased by 34 percent during this period, while productivity per employee in Henry and Louisa Counties remained relatively static. By 1967, Des Moines County had become the primary focus for manufacturers within the region or indicated by employee productivity of $17,036 (32 percent increase over 1963). During this 1963-1967 period, industrial growth and development was occurring at a faster pace in Henry County (72 percent increase in 1967 over 1963), reflecting more intense industrial potential efforts of the Mt. Pleasant community. Manufacturing growth within Lee County, during this period (1963-1967), demonstrated only a slight increase in the level of employment. By 1972, Lee County had regained a prominent position by increasing productivity to $20,984 per employee (39 percent increase).

[5]Value-added is an indicator used to judge the performance of the manufacturing sector of the economy. Value-added is defined as the difference between the cost of supplies, materials, fuel, and other inputs and the value of shipments made by manufacturing firms.

[6]Employee productivity is defined as the average value of manufactured goods produced solely from within the region as indicated by the total amount of employees producing these goods.

Table 5-9
VALUE ADDED AND EMPLOYEE PRODUCTIVITY FOR MANUFACTURING IN SOUTHEAST IOWA, 1958-1967

	1958				1963				1967			
	Number of Establishments	Total Employment	Total Value Added[1]	Employee Productivity[2]	Number of Establishments	Total Employment	Total Value Added[1]	Employee Productivity[2]	Number of Establishments	Total Employment	Total Value Added[1]	Employee Productivity[2]
Des Moines County	77	6,430	$ 56.479	$ 8,784	83	8,314	$ 100.354	$12,070	76	11,100	$ 189.1	$17,036
Henry County	16	231	1.719	7,442	17	250	1.765	7,060	18	500	6.1	12,200
Lee County	60	4,974	58.211	11,703	62	6,211	97.832	15,751	59	6,600	99.0	15,000
Louisa County	13	81	0.361	4,457	9	133	D	-	14	D	D	-
Region (excluding Louisa County)	153	11,635	116.409	10,005	162	14,775	199.951	13,533	153	18,200	294.2	16,165
Iowa	3,567	166,126	1,684.269	10,139	3,496	178,199	2,287.0	12,834	3,388	210,100	3,250.9	15,473

	1972			
	Number of Establishments	Total Employment	Total Value Added[1]	Employee Productivity[2]
Des Moines County	68	9,200	$ 185.4	$20,152
Henry County	17	700	13.7	19,571
Lee County	65	6,300	132.2	20,984
Louisa County	18	D	D	-
Region (excluding Louisa)	150	16,200	331.3	20,451
Iowa	3,350	216,500	4,730.6	21,850

Source: Census of Business.

[1] In millions of dollars.

[2] Value added per employee.

D: Withould to avoid disclosing figures for individual companies.

From 1967 to 1972, income generated from manufacturing employment for the Southeast Iowa region outpaced the state average of 41 percent by approximately six to eight percent (Southeast Iowa region increased by 47 percent). According to the manufacturing earnings listed in Appendix Table 5-2, the largest percent of reported income increase for manufacturing during this period was for Henry County (84 percent or $3,750 in 1967 to $6,923 in 1972). The substantial increase for Henry County and the region can be traced to a national manufacturing earnings trend of 6.4 percent per year and the continued location of major national manufacturers within the region paying competitive labor rates. Appendix Table 5-2 highlights the earnings increase for the region due to manufacturing.

Variations in manufacturing earnings occurred at the county level, as well as within the particular mix of industries that are located within a specific area. For a nondurable goods manufacturer seeking to pay a relatively low wage, a more optimal location for his operation would appear to be in areas where wage rates are lower than those associated with denser urban places. This aspect of industrial location has occurred in Henry County, as indicated by the generally lower employee earnings. If the nondurable goods manufacturer desired to locate in closer proximity to the various urban concentrations along the Mississippi River (e.g., Burlington, Fort Madison, Keokuk), he should expect to pay higher wages for older and more skilled employees who have gravitated to this urban area, attracted by the higher wages. Likewise, if the manufacturer seeks to draw skilled labor away from its present work environment to a more remote facility, the wage offer would have to reflect a sufficiently higher rate to allow for an economic trade-off from his existing employment. (See Appendix Table 4-1 for detailed wage rate survey analysis by county.)

By 1972, growth in manufacturing earning in the Southeast Iowa region was generally comparable with that of the state. Due to the initially lower-wage scale in manufacturing for the region, the national wage-price inflationary pressure has combined with the movement of large national firms to equalize many of these wage differences. By 1972, manufacturing in Southeast Iowa had become a stable and productive sector of the regional economy, supplying alternative employment opportunities for marginal farm employees, young males and females wishing to remain in the region, and employees displaced by the curtailment of the Atomic Energy Commission-Iowa Army Ammunition Facility.

RESIDENTIARY DIVISION

Retail and Wholesale Trade Sector

An indicator of the economic vitality of the region is the advancements made in the retail and wholesale trade sector. In order to

generate the demand for increased domestic (within the region) goods and services, sufficient consumer purchasing power must be available. As discussed in the preceding material, income from agriculture and manufacturing has increased while additional employment opportunities have been created through the location of national corporations in the region. With greater disposable personal income available to farmers and wage employees, more domestic goods and services are being purchased from local merchants who, in turn, have the opportunity to expand retail operations through reinvestment in facilities, inventory, and services.

At the state level, domestic employment in retail and wholesale trade has expanded from 170,000 in 1960 to 225,000 in 1972 for an increase of 32 percent in 12 years (2.6 percent annual increase).[7] A review of a similar time period (1960-1972) for the Southeast Iowa region indicates that retail and wholesale trade has increased, but not at a level comparable with the state. Table 5-10 indicates that total retail and wholesale trade employment within the region has increased by only 16 percent during this period, while substantial increases have occurred in individual retail categories such as auto dealers, furniture, and miscellaneous retail outlets.

Within the region, Lee County has historically demonstrated the greatest continuous growth in retail and wholesale trade employment. While there are many factors which affect retail and wholesale employment growth, a key variable for Lee County expansion must reside in its extreme southerly geographical position, and the resultant demand for Keokuk and Ft. Madison to service the trade area which overlaps into Illinois and Missouri. Correspondingly, the retail centers of Des Moines County represent mature facilities competing for the retail consumer within the more urbanized areas to the north.

Statistics compiled by the State of Iowa Department of Revenue for the fiscal year 1972 (calendar years 1972-1973) show that taxable retail sales for the region increased by 17 percent over comparable statistics for fiscal year 1968 (calendar years 1968-1969). As indicated in Appendix Table 5-3, this annual increase of 3.4 percent was also experienced by three counties (e.g., Des Moines, Lee, and Louisa) while a slightly higher rate of gross retail sales growth occurred in Henry County (4.2 percent per year).

Statistics compiled by the Department of Revenue show that retail sales in the region increased by 17 percent over the 1968 retail sales figure (or 4.2 percent per year). Most of the retail sales taxable growth has been concentrated in the major urban places within each county.

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[7]Office of Planning and Programming, *The Quality of Life in Iowa: An Economic and Social Report to the Governor,* Des Moines, 1973.

Table 5-10
RETAIL AND WHOLESALE TRADE EMPLOYMENT BY COUNTY--1960, 1972

	Des Moines		Henry		Lee		Louisa		Region		Percent Change
	1960	1972	1960	1972	1960	1972	1960	1972	1960	1972	
Wholesale	772	756	107	110	216	486	81	117	1,176	1,469	+24%
Retail											
Building Materials	127	146	121	141	184	168	45	73	477	528	+10%
General Merchandise	811	689	51	88	307	417	-	-	1,169	1,194	+02%
Food Stores	398	450	115	158	291	359	54	NA	858	967	+12%
Auto Dealers and Services	340	429	158	170	305	440	87	98	890	1,137	+27%
Apparel and Accessory Stores	152	D	-	-	144	115	-	-	296	115	-61%
Furniture and Home Furnishing	150	206	-	-	82	75	-	-	232	281	+21%
Eat and Drink	564	638	124	195	329	309	59	125	1,076	1,267	+17%
Miscellaneous Retail	362	547	78	155	196	262	34	47	670	1,011	+50%
Retail:	3,525	3,812	825	1,094	2,054	2,631	396	556	6,844	7,969	+16%

Source: County Business Patterns
Census of Retailing

From fiscal years 1968-1972, Burlington taxable retail sales increased by 14 percent, Mt. Pleasant by 17 percent, Fort Madison increased by 16 percent, and Keokuk by 18 percent. The relatively even distribution of urban place sales growth is indicative of the multipurpose relationship that these units serve to the surrounding rural area. While traditionally providing the location for industrial growth and for a limited range of primary goods and services, today these urban places are becoming the sites for regional retail chains offering a full line of goods and services.

Government Sector

A significant component of the residentiary division for the region is employment in the local government. The increase in employment experienced in this sector reflects comparable advances made throughout the nation, as increases in demand for all types of public services (e.g., public education, safety, health care) combined with expanded governmental grant programs and local revenues. Local government employment expanded in all four counties and county seats. Between 1962-1974, government employees increased in Des Moines, Henry, and Lee Counties by approximately 40 percent (see Table 5-11). During this same period, governmental employment in Louisa County expanded by 25 percent.

A major segment of local government employment results from public education--teachers, administrators, and support personnel. In 1972, public education employment comprised almost 50 percent of the region's local government employment. A much smaller segment of local government

Table 5-11
LOCAL GOVERNMENT EMPLOYMENT BY COUNTY AREA AND COUNTY SEAT, 1962-1974

	1962	1967	1972	Percent Change 1962-1974
Des Moines County	1,349	1,281	1,878	39%
Henry County	611	796	878	43
Lee County	1,070	1,248	1,466	37
Louisa County	431	511	541	25
Burlington	316	297	347	10
Fort Madison	116	110	143	23
Keokuk	212	228	281	32
Mt. Pleasant	NA	NA	63	NAS
Wapello	NA	NA	7	NAS

Source: Census of local government.

employment results from county services. For the region, approximately 10 percent of the total local government employment is related to county level personnel. The remaining 40 percent reflects an assortment of municipal and regional-level personnel.

Local government employment should decline slightly in the future. With a maturing regional population, and a declining regional birthrate, the continued demands for maintaining a variety of duplicate school systems with personnel will abate, thus producing school system consolidation and a net reduction in public education personnel.

Banking and Finance Sector

Another indicator of the economic vitality of the region is increases in employment and activities of the bank and finance sector. Due to increases in employment and income within the region, greater demands are made on the commercial banks to finance needed retail expansion, credit, and home mortgages. This need for expanded financial services resulted in an increase in banking sector employment of 49 percent between 1962 and 1972. Comparable statistics for the state (see Appendix Table 5-4) show an increase of 38 percent for the same period.

Employment in the banking sector is summarized in text Table 5-12 for 1962 and 1972. The largest employment increase was recorded for Louisa County; this resulted from the addition of new employment to a relatively small-base level of employment. The employment expansion of this sector occurred in every county, owing to the demand for a greater variety of banking, finance, insurance, and real estate services.

Commercial banking growth within the region has continued to expand at a rate comparable to the national average--ten percent per year. Differences among individual commercial banks reflect the particular management and advertising philosophy of the institution rather than the public's attitude toward utilizing financial services. Appendix Table 5-4 indicates that regional bank deposists have expanded by 30 percent, loans and discounts by 28 percent, and cash reserves by 23 percent.

Table 5-12
EMPLOYMENT IN BANKING AND FINANCE SECTOR--1962, 1972

County	1962	1972	Percent Increase
Des Moines	362	547	+51.1%
Henry	102	142	+39.2
Lee	263	387	+47.1
Louisa	37	65	+75.7
Region	764	1,141	+49.3

Generally, the loan-to-deposit ratio of 55 percent reflects a conscientious attitude by the bankers of protecting their clients assets. At this ratio, the banking institutions within the region are placing their funds in alternative financial investments where the returns are proportionally as high as the risks (e.g., U.S. Treasury bills and notes). The particular characteristics of the loans that are made are dependent on the management philosophy of the bank. Most lending consists of commercial, consumer, and real estate loans. The banking institutions in the region realize their obligation to serve the community they are located in and thus, the majority of financial services are rendered to local residents.

The increases in employment and deposists of this sector parallel the continued expansion of the other complementary regional economic sectors--agricultural, manufacturing, and retail and wholesale trade. Higher disposable incomes, greater consumer credit demands, and escalation of savings deposits have combined to produce reciprocating beneficial economic impacts.

Construction Sector

The construction sector of the regional economy supplies general building and special trade services (e.g., electricians, plumbers, bricklayers) for new and remodeled facilities. As such, this sector is not only dependent on the general economic vitality of the region, but is equally affected by the change in national and local interest and mortgage rates. In the Southeast Iowa region, the negative impacts of the higher mortgage and interest rates have been mitigated due to the large-scale industrial and public construction which had received prior financial commitment of funds at lower interest rates.

A substantial portion of the increase in construction employment within the region results from the amount of commercial, industrial, and public improvement projects undertaken since 1966 (see Table 5-13).

Table 5-13
EMPLOYMENT IN THE CONSTRUCTION SECTOR BY COUNTY--1962, 1972

County	1962	1972	Percent Increase
Des Moines	435	469	+14.0
Henry	212	261	+23.1
Lee	334	549	+64.4
Louisa	36	56	+55.6
Region	1,017	1,335	+31.2

Source: County business patterns.

Over $34 million worth of commercial buildings alone were constructed within the region from 1967 to 1972 (see Appendix Table 5-5). Of this amount, approximately 40 percent, or $13.7 million, was paid out in direct wages to labor, and a proportion of the remaining construction dollar was paid out for materials to local merchants and ultimately to Iowa state sales tax coffers.

With the escalation of national mortgage and interest rates, the residential construction market throughout the nation is dormant. Based upon housing data presented in Appendix Table 5-6, the increase of over 500 persons in the region within the last two years,[8] creates additional demands on a housing stock which can be characterized as older, limited in variety and quantity, and generally considered to be in need of upgrading. With a potential decline in interest rates, the opportunity again will exist to expand this sector of the regional economy by reinvesting public and private funds for residential development and conservation of residential areas in proximity to employment concentrations.

Service Sector

From 1962 to 1972, service employment increased due to the indirect demands from the exporting sector (e.g., manufacturing and agricultural) and directly from the continuing increase in local consumer income. As exporting firms and consumer earnings increased, more legal, educational, business, and repair services were required locally. The trend within this slowly growing region continues to create consumer pressures for a more sophisticated specialization of goods, skills, and services.

Table 5-14 points out a pattern of increasing regional employment specialization. Employment growth within the service sector has increased by a regional average of over 59 percent from 1962 to 1972, compared to a state gain of 35 percent. The growth of this sector indicates a regional trend away from individual consumer "self-sufficiency" to a greater dependence on specialized products and services generated from within the region.

Table 5-14
EMPLOYMENT IN SERVICE SECTOR BY COUNTY--1962, 1972

County	1962	1972	Percent Increase
Des Moines	1,789	2,768	+54.7%
Henry	451	851	+88.7
Lee	1,285	1,959	+52.5
Louisa	63	154	+144.4
Region	3,588	5,732	+59.7

Source: County business patterns

[8] *Ibid,* pp. 1-4.

The latest reported information on average earnings for a service sector employee throughout Iowa indicates an annual income of $4,297 in 1972. In 1972, the average service earnings per employee for the four counties of the region was below this state average. With the exception of Louisa County which has a smaller concentration of general business activity, the remaining counties demonstrated an equally comparable level of service earnings (Des Moines, $4,033; Henry, $3,981; Lee, $3,995). The higher service pay-scale of Des Moines County reflects the higher salaries in major industries of the county. The lack of industrial development in Louisa County vis-a-vis the more industrialized counties of the region points out this lack of earnings support from other higher paying industries.

6.
PHYSICAL INVENTORY

The development-related physical factors of the region are analyzed in this chapter. Most relevant are the transportation structure of the region, the character of production centers, physical impediments to industrial growth, growth trends, energy suppliers, water and sewer service areas, and mineral and recreation resources.

SUMMARY AND FINDINGS

The following conclusions have been drawn relative to the region:

1. The primary and secondary highway, sewer, and water systems (existing and proposed) indicate a broad capacity to develop a low-density urban pattern throughout the region. The size, cost, and location of existing facilities suggests that industrial growth will occur in the eastern corridor of the region along Route 61 and to a minor degree in Mount Pleasant and Louisa County.

2. The highway plans and programs as budgeted by the Iowa Highway Commission and as outlined within the region do not in all cases agree. Whereas major expressways and freeways are scheduled, the proposed and budgeted work is largely committed to the development of a north-south corridor along the Mississippi River.

3. Improvements in the primary road system will be needed to handle the traffic volumes resulting from increases in shipment of goods and commuting workers in the future. This is particularly true in and adjacent to urbanized areas.

4. The configuration of major production centers indicates that Burlington, Mount Pleasant, and Ft. Madison are dominant durable goods producers, while Keokuk serves as primarily a non-durable goods manufacturing center. Most other urbanized centers serve agricultural areas with limited non-agricultural activities.

5. In evaluating various physical impediments to growth, including water availability, access, slopes of land, water quality, and municipal

infrastructure, it is apparent that the eastern corridor in the region represents the best potential for industrial growth. Growth in Mount Pleasant would be contingent upon new housing, improved regional access, and improved municipal services.

6. The projected growth trends bear out the above observations with major expansions occurring in the four largest cities of the region.

7. Energy supplies to date have not posed a serious problem for the region. Of particular importance will be the continued development of natural gas supplies from the Michigan-Wisconsin Pipeline System, technological improvements in energy production, environmental clearances, federal energy policies, and the *ability to conserve energy*. The last is the only one which can be considered as within local control.

8. Mineral resources of the region appear limited to limestone, dolomite, sand, and some gypsum. No coal, clay, or shale are extracted in the area. The economics of shipping bulk materials is the major limitation to widespread exportation of minerals. Most extracted minerals are consumed locally for road building and general construction.

9. The area has adequate recreational facilities and some historic sites. There is a potential to attract tourist dollars by developing a short-distance vacation trip market for larger metropolitan areas of Iowa and Illinois.

10. The new housing stock is being developed in rural or suburban areas. Cities are providing less than one-half of the countrywide increases. The central cities typically contain older, more deteriorated units for which the rental market appears slow. Undoubtedly this is due to the poorer quality of such housing and a localized desire for owning rural, single-family units. This housing distribution suggests the need for an examination of the environmental effects of rural housing (i.e., septic tank pollution and farm land consumption) and an examination of the potentials for rehabilitation and conservation in central cities of the region.

TRANSPORTATION SYSTEM

The transportation system of the region is composed of several development-oriented facilities. The transport of goods, services, people, and ideas is accomplished by several modes. Among these are highways (truck and auto), rail, air, and water. The role of transportation in economic development cannot be overemphasized.

Surveys of industries were conducted to evaluate local opinion regarding transportation facilities. The results

of this survey reveal nearly complete satisfaction with transportation facilities and only minor dissatisfaction with highway travel times in southern Lee County. This dissatisfaction is more a function of distance than of highway quality. Some questions were raised relative to the location of the Burlington Airport since it serves as the commercial aviation facility to and beyond the region. Most persons interviewed were satisfied with Ozark Airlines service to the area and its schedules and rates. In addition to the second-level carrier service furnished at Burlington, airport facilities near Fort Madison and Keokuk provide the southern part of the region with adequate third-level carrier service.[1] Rail facilities and service were viewed as a key factor in terms of negotiating fair freight rates by alternative truck modes and vice versa. Rail service generally was perceived as high quality.

Highway System

The highway system of the region is comprised of a highly developed secondary or rural roadway network and a fair to adequate primary system. Financing highways in Iowa, unlike many other states, historically has placed high priority on county level roads. This tradition stems back to the idea of moving farm produce to market. The primary road system (outside of the interstate) has not received the same level of attention as rural roads. This has resulted in the following conditions:

1. The secondary highway network is so well developed that it constitutes a threshold of access that could (providing other necessary factors prevail) encourage industrial development in many locations. The secondary system can support commuter volumes and trucking in many locations.

2. However, the quality of the primary highway system, including certain major bridges, is well below comparable systems in industrial states such as Ohio, Minnesota, or Michigan. This has resulted in points of congestion in major production centers such as Burlington, Keokuk, and

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(1) Levels of Aviation Facility and Service

-- Primary: Major international and domestic flight operations terminal serviced by short to intermediate flights on regularly scheduled carriers.

-- Secondary: Regional air terminal serviced on a regular basis by a limited number of major carriers providing short flight service.

-- Teritary: Subregional air terminal serviced by a commuter carrier and operating on a demand/ call basis.

Fort Madison (i.e., U.S. 61 through western Burlington and the U.S. 534 bridge in Burlington leading to Gulfport, Illinois; U.S. 136 through downtown Keokuk and the U.S. 136 bridge in Keokuk leading to Hamilton, Illinois; U.S. 61 through Fort Madison). In discussions with shipping companies, specific reference was made to the problems encountered in using the U.S. 61 bridge north of Wapello. The bridge is in poor repair and is periodically open to one-way traffic.

For the present, traffic volumes do not create major congestion problems or shipment time differentials. However, as industries continue to locate in major centers, the primary road network will require more attention than it has received in the past.

For the purposes of this report, Barton-Aschman classified highways into three generalized types according to major functional role in the movement of goods, people, or services. These classifications provide a uniform method of evaluating what the functional role of each linkage is within the region:

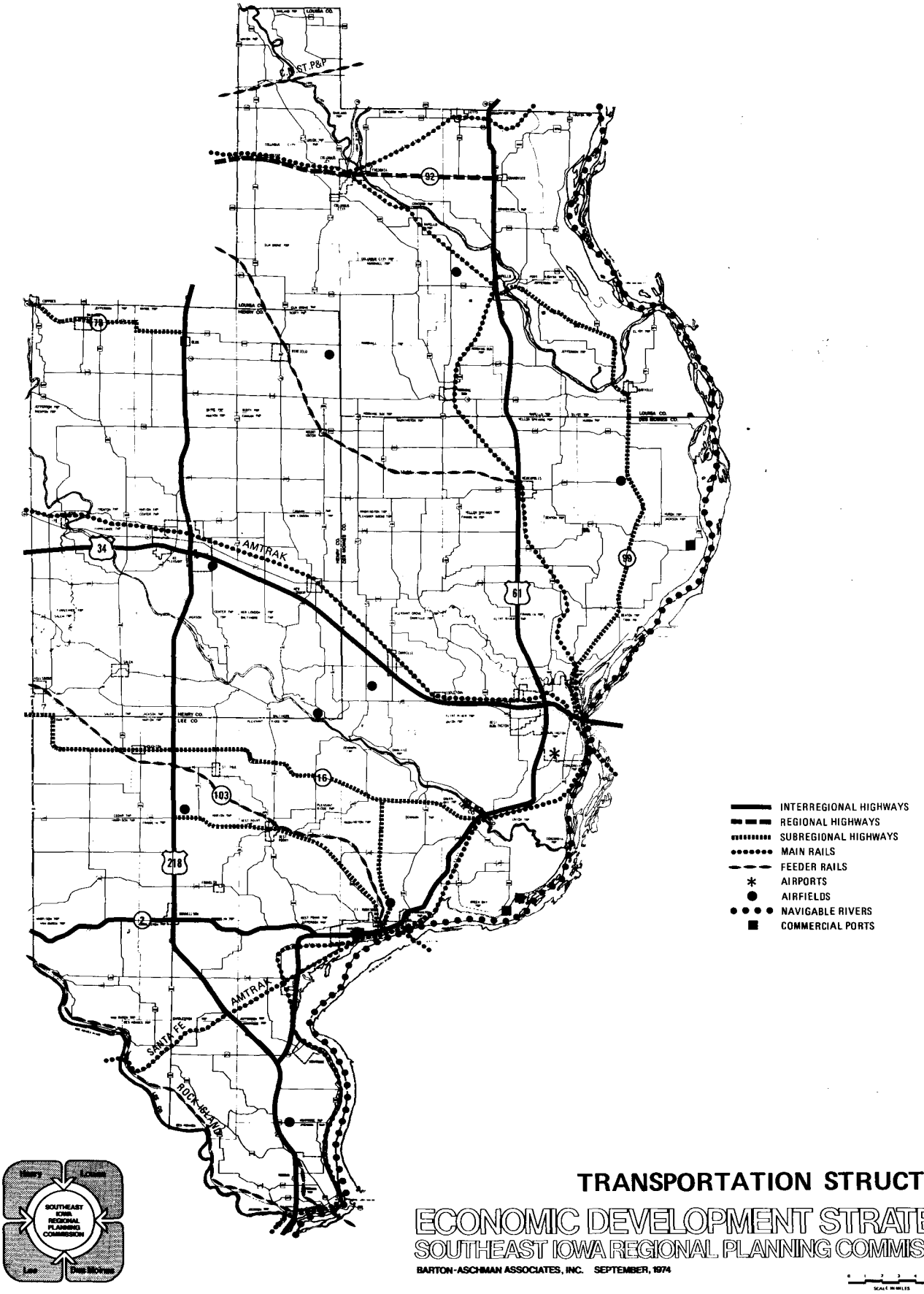
-- *Interregional highways* which link the region and its production centers to areas outside the region such as midwestern or national markets.

-- *Regional highways* which connect major production centers to each other or to interregional highway linkages.

-- *Subregional highways* which connect sections of the region to each other such as the regional rural areas to central urbanized areas.

Figure 6-1 shows this configuration. Interregional links include U.S. 218, U.S. 534 (or U.S. 34), and U.S. 61 north of Burlington. These routes carry most of the movements of goods that approach or depart from production centers. Regional links include U.S. 61, south of Burlington, Iowa 2, and Iowa 92. These routes serve the primary purpose of connecting major river towns (in the case of U.S. 61 south of Burlington) or carry movements to other interregional links (as in the case of Iowa Routes 2 and 92). U.S. Route 61 south of Burlington does carry interregional movements but primarily serves as a regional-level facility. There are four river bridges which connect the region to other areas; the U.S. 534 bridge at Burlington; the Fort Madison bridge to Niota, Illinois; the Keokuk bridge to Hamilton, Illinois; and the Keokuk U.S. 61 bridge into Missouri. The Keokuk, U.S. 61 bridge, and the Burlington U.S. 534 bridge represent the major bridge linkages to areas outside the region. Iowa Route 2 crosses the Des Moines River just west of the region connecting the region to southern Iowa counties to the west. This is a minor linkage.

Major proposed highway improvements include the eventual completion of U.S. 534 proceeding west from Burlington through Mt. Pleasant to Des Moines; the relocation and building of U.S. 518 from Keokuk to New London, Mt. Pleasant, and then northerly, west of the existing alignment of U.S.



SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

Henry · Lee · Des Moines

TRANSPORTATION STRUCTURE

ECONOMIC DEVELOPMENT STRATEGY
SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

BARTON-ASCHMAN ASSOCIATES, INC. SEPTEMBER, 1974

Figure 6-1

218, to Interstate 80 near Iowa City, Iowa. Both of these links would be non-interstate freeways; however, as planned, U.S. 518 would connect Minneapolis and St. Louis. An expressway link is proposed to connect Fort Madison to the realigned U.S. 218, replacing the existing Iowa Route 2. These proposals are based upon the Highway Planning Surveys Department information as revised to February, 1972.

In reviewing current highway programs, as stated in the 1974 Primary Road Accomplishment Program of the Iowa Highway Commission, it is evident that major expenditures are being proposed for U.S. 61 and U.S. 534 in the Burlington area; U.S. 61 and Iowa 2 in the Fort Madison area; and U.S. 61, and U.S. 218 in the Keokuk area. Thus, the completion of the freeway and expressway plan for the region as stated in the revised 1972 plan is not being followed to the letter. A major divergence from the plan is the rebuilding of U.S. 61 throughout the region ($9,980,000 for 1974-1979) creating a major, partially limited-access facility from north to south, apparently in response to traffic congestion in Burlington and Fort Madison. The completion of U.S. 534 west to Henry County from West Burlington ($10,058,000) is not programmed before 1979. Similarly, carrying U.S. 534 through Henry County ($6,772,000) is not programmed before 1979. Both Henry and Des Moines Counties links ($16,830,000) are labeled as unfunded critical needs. U.S. 218 from Keokuk to Mt. Pleasant and, thence, northerly is not listed as a critical need and apparently will not be funded before 1979. Programmed improvements appear to be in response to identified short-term needs as opposed to the adopted plan within the region. Outside the region, the short-term programs have focused on relocated U.S. 218 (to be U.S. 518) north of Washington County and improvements of Iowa 92 approaching Mt. Pleasant from Des Moines, Iowa. These improvements are in accordance with the freeway plan revised to 1972. (See Text Table 6-1.)

Presuming the Iowa State Highway Plan (as revised to 1972) is implemented, a shift in access advantage would be observed. Mt. Pleasant and Burlington would have much improved access as would Fort Madison and Keokuk. However, Fort Madison and, in particular, Keokuk would be less desirable as industrial locations. Northern Des Moines County, southern Louisa County, and northeastern Henry County would be low-access areas as well. This speculation speaks solely to *access* as the predominant variable in industrial attractiveness and presumes the implementation of the 1972 highway revised plan.

The study of the highway between Kansas City, Missouri, and Chicago was authorized through Public Law 93-87 Section 143(2). This link would cross the Mississippi River at a point between Nauvoo, Illinois, and Hannibal, Missouri. Since an exact alignment has not been determined, it is difficult to assess the impact on the region.

River Barge Service

The Mississippi River barge traffic carries substantial tonnages of bulk materials including grain, coal, minerals, oil, and some finished

Table 6-1
1974-1979 REGIONAL HIGHWAY IMPROVEMENTS SCHEDULE

County	Interregional or Regional Highway Link	Type Improvement	1974-1979 Cost
Louisa	U.S. 61 from Iowa 91 north to Muscatine County line	Right-of-way and reconstruction	$ 827,000
	Iowa 92 from Washington County line to Iowa 70	Right-of-way	86,000
Lee	Iowa 2 from U.S. 218 to U.S. 61	Right-of-way, grade, and drain	2,578,000
	U.S. 61 from U.S. 218 to Iowa 2	Surfacing	223,000
	U.S. 61 from Iowa 2 to 40th Street in Fort Madison	Right-of-way and reconstruction	1,972,000
	U.S. 61 from 40th Street to Avenue H in Fort Madison	Right-of-way, grade, and drain	2,644,000
	U.S. 218 from four lane in Keokuk to south junction U.S. 61	Right-of-way and reconstruction	1,982,000
	U.S. 218 from U.S. 61 to Iowa 2	Right-of-way, grade, and drain	3,018,000
Henry	U.S. 34 near western city limit of Mt. Pleasant	Right-of-way and reconstruction	322,000

Table 6-1 (Cont'd)
1974-1979 REGIONAL HIGHWAY IMPROVEMENTS SCHEDULE

County	Interregional or Regional Highway Link	Type Improvement	1974-1979 Cost
Henry (cont'd)	U.S. 34 near east city limits of Mt. Pleasant	Right-of-way and reconstruction	$ 545,000
Des Moines	U.S. 61 from Skunk River to West Avenue	Right-of-way	391,000
	U.S. 61 from West Avenue to Agency in Burlington	Right-of-way and reconstruction	2,101,000
	U.S. 61 from Agency Street to U.S. 34 in Burlington	Right-of-way and reconstruction	1,164,000
	U.S. 61 from Sunnyside Avenue to U.S. 34 in Burlington	Right-of-way and reconstruction	773,000
	U.S. 61 north edge of Burlington	Right-of-way, grade, drain, and pave	1,094,000
	U.S. 534 from present U.S. 34 to Burlington Northern Railroad in West Burlington	Right-of-way, grade, drain, and pave	4,495,000
	U.S. 534 from Burlington Northern Railroad to Osborne Street in Burlington	Pave	2,259,000

products. The region itself, however, is served largely by rail and truck for movement of manufactured products. Curiously, the river cities in the region formerly served as breaking-of-bulk points for finished products in the 1800s, but now shipments are limited to grain, fertilizer, oil, salt, and coal; barge service represents a major transportation advantage for the region in terms of bulk commodities. The advantage of this mode for bulk shipping is one of price, since the cost is about one-third of rail and one-sixth of truck. In Pool 19 which extends from Keokuk to Lock and Dam 18, seven miles north of Burlington, there are at least 10 barge facilities on the Iowa side and at least four on the Illinois side (Figure 6-1 does not identify all locations). The Iowa barge facilities include one dock for oil in Burlington, one dock for general commodities in Keokuk (salt, coal, and paper for Des Moines, Iowa, enter here), three fertilizer docks, and five grain docks. Grain and bean exports from Burlington alone range from 25 to 30 million bushels annually, based on chamber of commerce inspection figures. The Illinois side of Pool 19 has at least four grain docks. Grain is exported out of this pool southerly to the Gulf of Mexico for eventual foreign export. Unfortunately, exact commodity movements are not monitored by place of origin or destination. They are measured by passage through the docks. The importance of barge movements will require further attention. No industry interviewed in August, 1974, could conceive of the need for new port facilities to serve their needs and few used the river at present.

Railroad Service

The region is well served by major rail corridors. The Burlington Northern (BN) crosses the Mississippi River at Burlington and forms two major corridors in the region. The east-west BN corridor serves Burlington, West Burlington, Danville, New London, Mt. Pleasant, and Rome with Class 4 mainline service.[2] This line, which connects Chicago, Denver, and San Francisco, is also an AMTRAK route with scheduled stops at Burlington and Mt. Pleasant. The southwest corridor of the BN (a Class 3

(2)

Railroad Service Levels

Over track that meets all of the requirements prescribed in this part for-	The maximum allowable operating speed for freight trains is--	The maximum allowable operating speed for passenger trains is--
Class 1 track ..	10 mph	15 mph
Class 2 track ..	25 mph	30 mph
Class 3 track ..	40 mph	60 mph
Class 4 track ..	60 mph	80 mph
Class 5 track ..	80 mph	90 mph
Class 6 track ..	110 mph	110 mph

mainline) proceeds through Wever to Fort Madison where it interchanges with the Atchison, Topeka, and Santa Fe Railway Company System (AT&SF RR), and then continues in a southerly direction through Keokuk to St. Louis, Missouri. The Burlington Northern provides daily freight service to all of the major industrialized cities within the region (i.e., Burlington, Fort Madison, Keokuk and Mt. Pleasant) and to many of the agricultural-oriented communities. The AT&SF (a Class 4 mainline) proceeds southwesterly across southern Lee County and serves to connect Chicago to the southwest, Topeka and Wichita, Kansas. The AT&SF is the second AMTRAK route within the region. With a stop at Fort Madison, it provides passenger service to Chicago, Houston, Los Angeles, and parts in between. In total, three of the six AMTRAK stops in Iowa are located in the region. (i.e., Burlington, Mt. Pleasant, and Fort Madison).

A northern rail corridor proceeds from Burlington through Sperry, Mediopolis, Morning Sun, Wapello, Columbus Junction, and on to Cedar Rapids, Iowa--a major Iowa interchange point. This rail line is known as the Chicago, Rock Island and Pacific Railroad, and is classified as a Class 2 main line. The Rock Island also has a line that connects with the above line at Columbus Junction and proceeds to Muscatine, Iowa, for interchange purposes. The Rock Island has daily service to Burlington where it primarily serves the J.I. Case Company along with the BN which has running rights on the Rock Island line in this area. Several lesser rails also exist in the region (see Figure 6-1).

No rail service is proposed to be abandoned in the region at this time. However, such service termination is occurring in other parts of Iowa. The region will not be affected by rail closures based on current information as it exists.

Commercial Aviation Service

Commercial air service is provided at Burlington Municipal Airport through Ozark Airlines which connects St. Louis, Missouri; Burlington, Iowa; and Galesburg, Quincy, and Chicago, Illinois, through its various flights. Fort Madison and Keokuk are served by two commuter routes: Fort Madison to Keokuk to Macomb, Illinois, to Chicago, Illinois; and Fort Madison to Keokuk to Macomb, Illinois, to St. Louis, Missouri. Of the over 300 airports in Iowa only 10 are certified by the Civil Aeronautics Board for commercial flights and Burlington is one of the 10. Recommended improvements (as stated in the report, *Iowa State Airport Systems Plan, Volume II, Technical Supplement)* for the Burlington airport include extending runways; developing clear zones; and upgrading taxiways, airfield lighting, approach aids, terminals, and hangars. The estimated costs to implement this plan are $2,679,300 before 1977, $1,158,800 before 1982, and $1,754,700 before 1992. State and federal funds are suggested to meet these financing needs. Fort Madison, Keokuk, and Mt. Pleasant airfields are also in the state airport plan with appropriate improvement recommendations.

CHARACTER OF PRODUCTION CENTERS

Figure 6-2 relates the type of products produced with specific locations in the region. It is evident that Fort Madison has many industries which produce such non-durable items as foods, paints, chemicals, and paper products. Conversely, Burlington and West Burlington produce durable goods almost exclusively with many of them in the heavy industrial line. Keokuk has a balance of both durable and non-durable goods, with non-durables predominantly in the food and chemicals area. Mt. Pleasant is a predominantly durable goods production area with heavy employment in assembly type industries. Most other towns in the region serve as agri-business centers with small mixtures of plastics, publishing, wood products, or building materials industries.

PHYSICAL IMPEDIMENTS TO INDUSTRIAL GROWTH

The Mississippi River and Des Moines River represent a barrier to the movement of goods and employment except where bridges have been constructed. The U.S. 534 bridge represents the major access across the river in the northern part of the region and the U.S. 61 bridge at Keokuk across the Des Moines River in the southern part of the region. The Fort Madison and Keokuk bridges across the Mississippi River serve primarily as commuter linkages. Since river crossings are well defined, industries tend to locate near them if shipping to the East is a factor to such an industry. Figure 6-3 shows such physical impediments to growth as topographic slopes in excess of 15 percent, floodplains, and groundwater availability and quality. Floodplains (unprotected) are undesirable as sites for future industry. Land with slopes in excess of three or four percent are difficult to develop for industrial purposes, and slopes over 15 percent make development practically infeasible. Ideal slopes for industrial development range from one to two percent. It is difficult to generalize about water quality and quantity in the region. The quality ratings shown in Figure 6-3 relate to domestic standards not industrial needs. Since the area groundwater and surface water supplies contain major quantities of calcium carbonate, iron compounds, manganese, and salts among other compounds, water-consuming industries should study the water quality of the area. In general, except for the area adjacent to the Mississippi River, the farther one moves to the southwest or northeast in the region the greater the likelihood of poor quality water. Generally speaking, Area A in Figure 6-3 represents good water supply particularly in the Surficial and Cambian-Ordovician aquifers. The Mississippi River is the only really reliable source of direct surface water. The flow of other rivers varies greatly during the year. This factor also affects industrial environmental criteria where water is needed for dilution of wastes or diffusion of waste water heat without damage to wildlife. Generally, Area C does not have adequate water quantity without drilling very deep or in special areas. Figure 6-3 illustrates certain contaminant problems for Keokuk and Fort

1. WAPELLO INDUSTRY

	PRODUCTS
PALLISTER & SON	NATIVE LUMBER
CHALLENGE, INC.	BUNK BEDS, WOOD HEAD BOARDS, CONVERTIBLE BEDS
MULTI MOULDING, INC.	PLASTIC PRODUCTS
SCOTT & CO.	AIR INFLATED STRUCTURES, OUTDOOR BUMBER CARS
SILINE & JOHNSON	RUBBER CEMENT, KNIFE HANDLES
LOUISA PUBLISHING CO., LTD	NEWSPAPERS, COMMERCIAL PRINTING (LETTERPRESS AND WEB OFFSET)

2. MORNING SUN INDUSTRY

	PRODUCTS
WHITE METAL PRODUCTS CO.	RECESS JOINTS, CENTER JOINTS, EXPANSION AND CONTRACTION JOINTS, PAVING HARDWARE
MORNING SUN NEWS-HERALD	NEWSPAPER, COMMERCIAL PRINTING
PIPEMASTER CORP.	CONCRETE PIPE UNLOADER

3. OAKVILLE INDUSTRY

	PRODUCTS
OAKVILLE FEED & GRAIN, INC.	FEED
KUNTZ SAW SERVICE, INC.	NATIVE LUMBER, BLOCKING

4. MEDIAPOLIS INDUSTRY

	PRODUCTS
U.S. GYPSUM	MINING AND WALLBOARD PRODUCTION

5. DANVILLE INDUSTRY

	PRODUCTS
DES MOINES COUNTY FARM SERVICE CO.	BLENDED FERTILIZER

6. BURLINGTON INDUSTRIES

	PRODUCTS
MURRAY DIV. OF THE TRANE CO.	STEAM TURBINES, WATERTUBE BOILERS
MASON AND HANGER - SILAS	AMMUNITION OVER 30 M.M. MISSILE WARHEADS
CASE, J.I., CO.	WHEEL LOADER TRACTORS AND FORKLIFT TRACTORS (INDUSTRIAL) BACKSHOES?
WINEGARD CO.	ELECTRONIC TV RECEPTION COMPONENTS
CHITTENDEN AND EASTMAN CO.	UPHOLSTERED FURNITURE, MATTRESSES
TRW/IRC FIXED RESISTORS	FIXED METAL FILM, DEPOSIT CARBON RESISTORS. FIXED.
LEHIGH LEOPOLD FURNITURE DIV.	OFFICE FURNITURE
ESB, INC.	AUTOMOTIVE BATTERIES
BURLINGTON BASKET CO.	CLOTHES HAMPERS, PICNIC BASKETS, BABY BASKETS AND BASSINETS, SEWING CHESTS
IOWA INDUSTRIES, INC.	SPARK PLUGS
MIDWEST BISCUIT CO.	CRACKERS, COOKIES
KLIEN MANUFACTURING	AGRICULTURAL FEEDERS, NEXT AND METAL FLOORS
U.S. BORAX	SOAPS AND PRODUCT PACKAGING
BONEWITZ CHEMICAL, INC.	FOOD EQUIPMENT CLEANERS AND SANITIZERS

7. WEST BURLINGTON INDUSTRY

	PRODUCTS
ANTENNA CRAFT CO.	TV AND F.M. ANTENNAS
GENERAL ELECTRIC CO.	DRAW OUT SWITCHGEAR, ENCLOSED SWITCHES

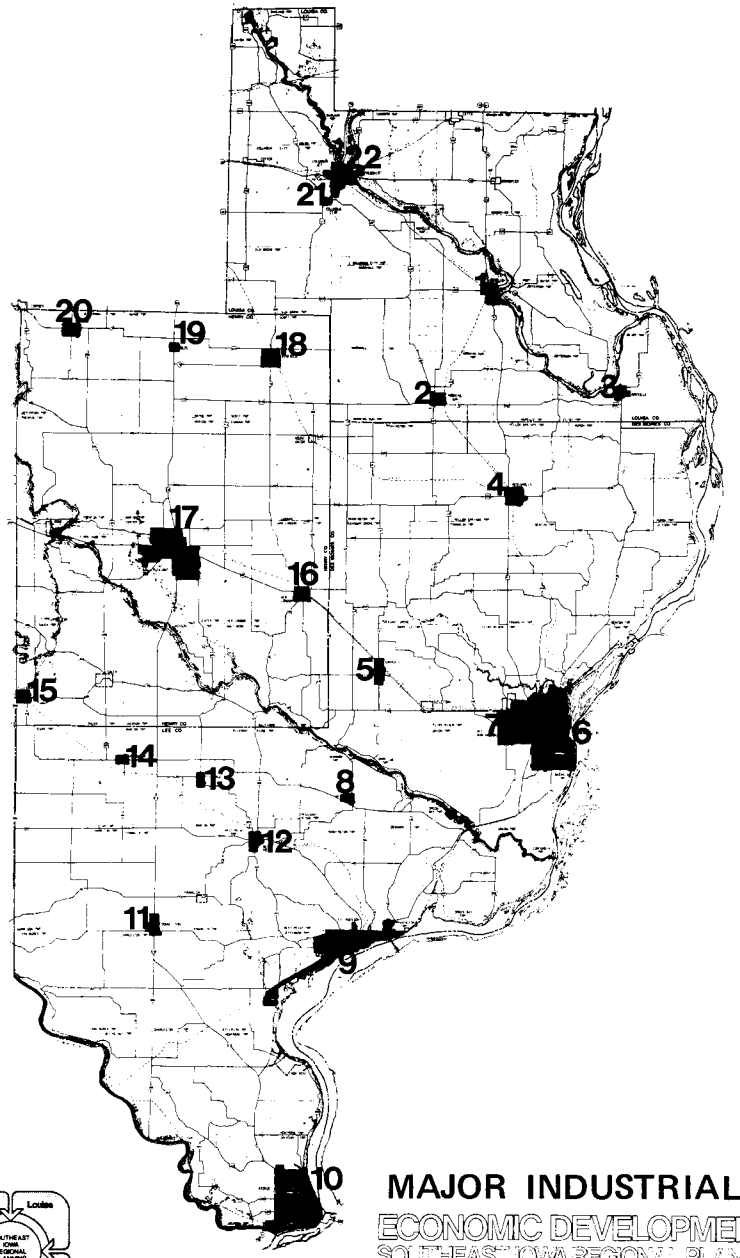
8. DENMARK INDUSTRY

PRODUCTS

SAFETY LOCKS FOR VALVES, SMALL ROLLERS, TV ANTENNA PARTS, HORSE SHOES, CUSTOM PLASTIC, INJECTION MOLDING, NOSE PLUGS, STIRRUPS, FLY SWATTERS, TOYS, END CAPS AND PLUGS

9. FORT MADISON INDUSTRIES

	PRODUCTS
ORTHO DIV. CHEVRON CHEMICAL CO	ANHYDROUS AMMONIA, LIQUID CO_2
FIRST MISSISSIPPI	COMPLEX GRANULAR, FERTILIZERS, PHOSPHORIC ACID, AMMONIA, SULFURIC ACID.
DU PONT, E.I., DE NEMOURS & CO.	THINNERS, CAN LININGS, AUTOMOTIVE REFINISH, INDUSTRIAL & TRADE SALES FINISHES
ARMOUR DIAL INC.	CANNED MEATS
MIDWEST WAX PAPER CO.	SANDWICH WRAPPERS, INTERFOLDED DELICATESSEN TISSUE PAPERS, WAXED PAPER, MEAT PATTY INTERLEAVING PAPERS,
FRUEHAUF CORP.	TRUCK TRAILERS
SHEAFFER, W.A., PEN CO. DIV.	MECHANICAL PENCILS, FOUNTAIN PENS, BALLPOINT PENS, MARKING PENS
IOWA STATE INDUSTRIES	FURNITURE, MATTRESSES
GLEASON CORP.	HAND TRUCKS, HAMMOCKS
CONSOLIDATED PACKAGING CORP.	PAPER CORRUGATING MEDIUM
JOHN H. BRECK, INC.	HAIR CARE PRODUCTS
ANCHOR METALS	POWER SWITCH YARD STRUCTURES, INTERNATIONAL CONTROLS



10. KEOKUK INDUSTRIES

	PRODUCTS
JACKSON, BYRON, INC. - BJ RUBBER PRODUCTS	RUBBER MOLDED, EXTRUDED AND BONDED TO METAL
SHELLER - GLOBE CORP.	CRASH PADS, SPONGE RUBBER
HOERNER WALDORF CORP. CONTAINERS DIV.	CORRUGATED CONTAINERS ELECTRODE PASTE, CALCIUM
MIDWEST CARBIDE CORP.	CARBIDE
GENERAL MILLS CHEMICALS, INC.	VITAMIN PRODUCTS, WHEAT PROTEINS, STARCH
HUBINGER CO., THE	CORN SYRUP AND STARCH, CORN GLUTEN FEED AND MEAL, CORN GERMS
KEOKUK STEEL CASTING, DIV. OF.	ROUGH STEEL CASTINGS
FOOTE MINERAL CO.	ELECTROMETALLURGICAL PRODUCTS
ST. LOUIS DIECAST CORP.	PRIMARY METALS

11. DONNELLSON INDUSTRY

	PRODUCTS
DES MOINES COUNTY FARM SERVICE CO.	BLENDED FERTILIZER
DONNELLSON REVIEW, THE	COMMERCIAL PRINTING

12. WEST POINT INDUSTRY

	PRODUCTS
MERSCHMAN SEED & FERTILIZER INC.	MIXED LIQUID, FERTILIZER
RAID QUARRIES CORP. HAWKEYE QUARRY	AGRICULTURAL LIMESTONE
IDEAL FEED MILL	FEED
WEST POINT BEE	NEWSPAPER, COMMERCIAL PRINTING

13. SAINT PAUL INDUSTRY

	PRODUCTS
SAINT PAUL FEED STORE	LIQUID FERTILIZER

14. HOUGHTON INDUSTRY

	PRODUCTS
CONRAD, INC.	STEEL STORAGE, BUILDINGS, BOATS
CHEM GROW OF HOUGHTON, INC.	LIQUID & DRY BLENDED FERTILIZER

15. HILLSBORO INDUSTRY

	PRODUCTS
HILLSBORO GRAIN & SUPPLY	LIVESTOCK FEEDS & SUPPLEMENTS

16. NEW LONDON INDUSTRY

	PRODUCTS
GEODE INDUSTRIES	VIBRATING TUMBLER (STONE POLISHING OR INDUSTRIAL DE-BURRING), ROTARY TUMBLER (STONE POLISHING OR METAL & PLASTICS DE-BURRING), JEWELERS FACETING, MACHINERY AND CRAFTS TOOLS
SOUTHEAST IOWA PUBLISHING CO.	OFFICE FORMS, BOOKLETS, NEWSPAPER

17. MOUNT PLEASANT INDUSTRIES

	PRODUCTS
CARGILL, INC.	HYBRID SEED CORN
SUPERIOR CONTINENTAL CORP.	COMMUNICATIONS CABLE
BLUE BIRD MIDWEST, INC.	SCHOOL BUS BODIES
VEGA INDUSTRIES, INC.	FIREPLACE LINER, FLUE LINER
METRO-MAIL ADVERTISING CO.	DIRECT MAIL ADVERTISING
MOTOROLA, INC.	TWO-WAY RADIO PARTS
MITCHELL ENGINEERING	STEEL BUILDING FABRICATION

18. WINFIELD INDUSTRY

	PRODUCTS
WINFIELD AGRI-BUILDERS	MISCELLANEOUS STEEL PRODUCTS

19. OLDS INDUSTRY

	PRODUCTS
CUSTOM FARM SERVICE, INC.	DRY BLENDED FERTILIZER
FARMERS ELEVATOR CO.	POULTRY FEED

20. WAYLAND INDUSTRY

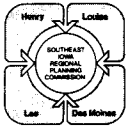
	PRODUCTS
COCHRAN, H.G., COCHRAN, W.T.	NATIVE LUMBER
WAYLAND NEWS	NEWSPAPER, COMM. PRINTING
WIDMER MEAT PLANT	LARD

21. COLUMBUS CITY INDUSTRY

	PRODUCTS
RATH PACKING CO.	SMOKED BACON BELLIES PORK CUTS

22. COLUMBUS JUNCTION INDUSTRY

	PRODUCTS
NORWALK VAULT CO.	CONCRETE BURIAL VAULTS AND SEPTIC TANKS

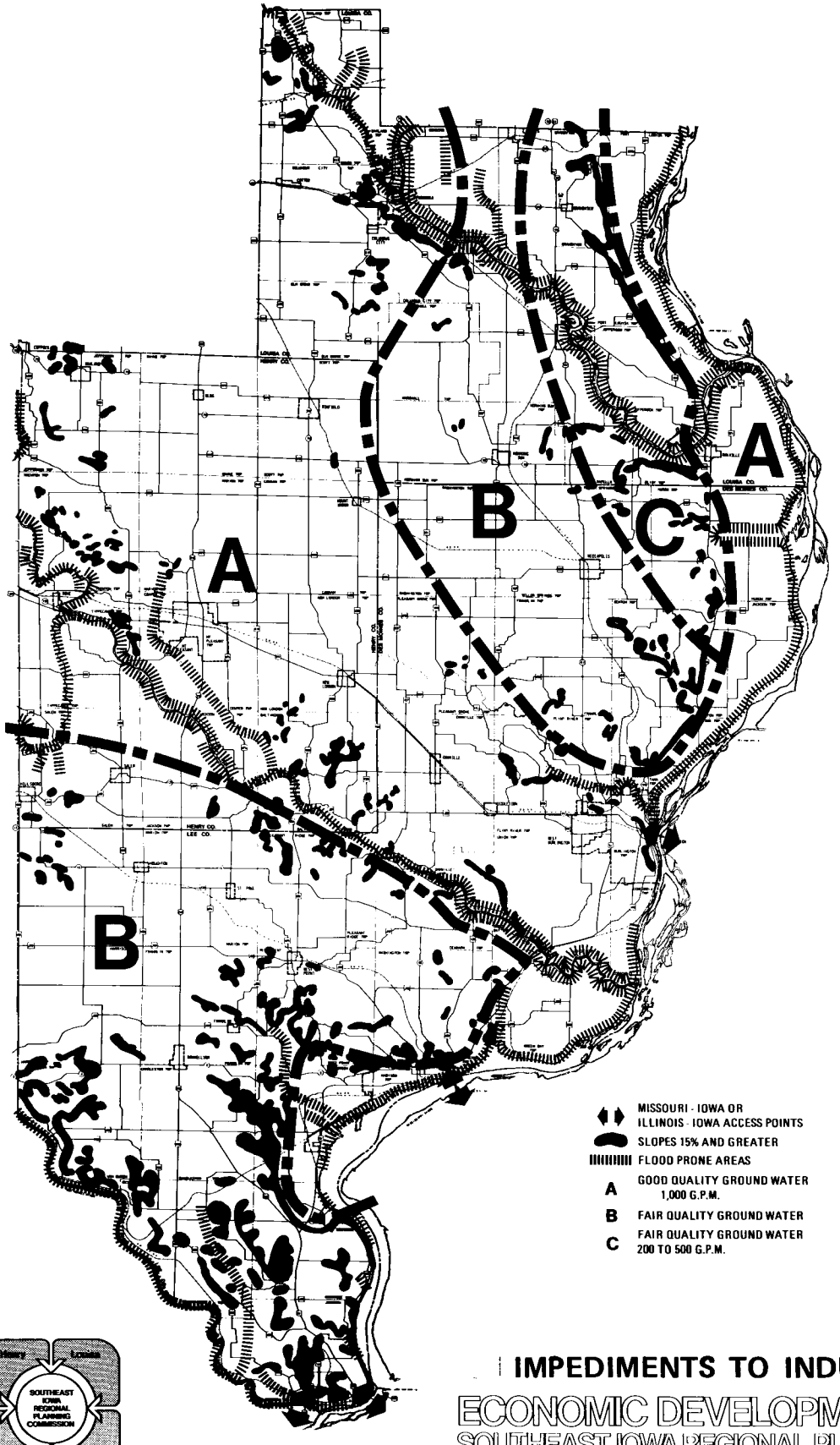


MAJOR INDUSTRIAL LOCATION

ECONOMIC DEVELOPMENT STRATEGY
SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

BARTON-ASCHMAN ASSOCIATES, INC. SEPTEMBER, 1974

Figure 6-2



SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

PHYSICAL IMPEDIMENTS TO INDUSTRIAL GROWTH

ECONOMIC DEVELOPMENT STRATEGY

SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

BARTON-ASCHMAN ASSOCIATES, INC. SEPTEMBER, 1974

SCALE IN MILES

Figure 6-3

Madison by virtue of the river, floodplains, and slopes of the surrounding land. Municipal water supply is not a limiting factor for river towns of the region. However, the farther one proceeds from the river in a westerly direction, the more costly water becomes.

GROWTH TRENDS

The future trends in land consumption are illustrated in Figure 6-4. Most of this expansion is contiguous to existing urbanized areas. Most of the expansion will occur in Fort Madison, Keokuk, Burlington, and Mt. Pleasant. West Point has fair growth potential measured as a percent of its original land area.

Several scattered residential developments are expected along the Mississippi River north of Keokuk in Jackson and Montrose Townships and north of Fort Madison in Denmark and Green Bay Townships. These developments are costly to serve with public utilities. A major new commercial development is the proposed shopping mall in West Burlington. It is uncertain whether the development will be undertaken in accordance with published news reports. Certain regional developments raise questions as to the need for (1) floodplain ordinances regionwide, or (2) additional flood levees along the Mississippi River. All proposed expansion areas were based on area plans to the year 1985 and may reflect an underestimate of rural housing production or rural mobile home production.

ENERGY RESOURCES

Energy supply is rapidly becoming one of the more critical variables in economic development. Prior to the Arab oil embargo of 1973-1974, national energy consumption was growing faster than the Gross National Product as a result of an illusive world energy supply that was underpriced relative to American and international consumption levels. National factors which escalated this growing demand were the increased use of energy for transportation (since 1965, the average annual increase in transportation energy was 5.27 percent, compared with 3.28 in the previous five-year period)[3] and the lack of improvement in energy conversion techniques. The result of the embargo and increased crude oil prices has altered the national perspective on energy and especially its availability to maintain the traditional standard of living to which Americans have become accustomed.

The future availability of energy depends upon a complex series of national and international policies, new technologies, new explorations and finds, new energy forms, and ultimately, the rate of growth of energy

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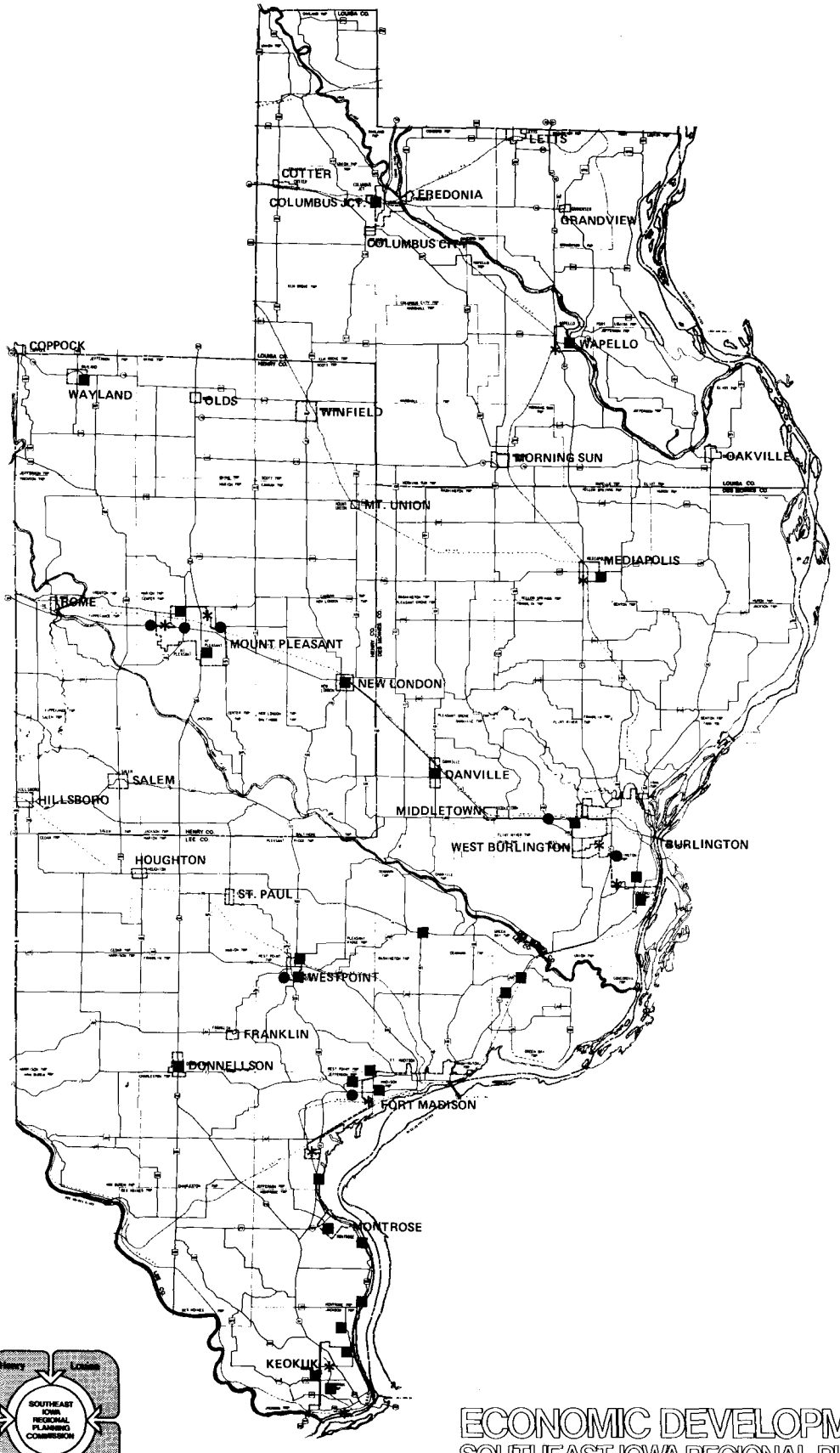
[3]Governor's Conference on Iowa in the Year 2000, *Energy in Iowa's Future*, October, 1973, p. 2.



SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

GROWTH TRENDS

ECONOMIC DEVELOPMENT STRATEGY

SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

BARTON-ASCHMAN ASSOCIATES, INC. SEPTEMBER, 1974

SCALE IN MILES

Figure 6-4

demand. To date, the general public has experienced gasoline price increases of 40 percent, persistent rumors regarding the deregulation of natural gas, and a massive public education program stressing energy conservation. The results of these tactics have been impressive. Domestic consumption of gasoline has dropped appreciably and many electrical utility companies are now projecting lower rates of growth in kilowatt hours. With inflation gripping the nation so hard, the real question for the future may well reside in the probability of the nation's economic structure to regain the four to five percent real growth in GNP that became a hallmark of American entrepreneurial success.

National and State Energy Profile

At both the national and state levels, over 95 percent of our energy supplies comes from fossil fuels (e.g., oil, coal, natural gas) which are roughly distributed equally among the various demand sectors: industrial, 28.8 percent; electrical generation, 25.6 percent; transportation, 25.0 percent; and residential and commercial, 20.6 percent.[4] As indicated in Table 6-2, Iowa's dependence on the various energy sources has paralleled the national trend except for petroleum and natural gas. This exception has resulted from:

1. The substitution of more readily available energy sources such as natural gas and coal for petroleum.

2. The recent continuous availability of natural gas at lower and more competitive prices.

As mentioned previously, the supply of energy to Iowa will depend upon a variety of interrelated factors that are presently so complex as to defy predictability. Similar to many other states, Iowa must import vast quantities of its energy and is, therefore, dependent on the policies and programs undertaken by the federal government and the energy industry to stimulate and direct production. The following summarizes Iowa's immediate energy outlook.

Coal: It is estimated that Iowa has low-grade, high sulfur content coal reserves of approximately 6.5 billion tons. Due to federal air quality control standards, this high-sulfur coal is unmarketable under present coal conversion techniques to its largest potential user--electrical utilities. Substantial advancements in coal desulfurization or gasification will have to be developed before Iowa's coal reserves can be tapped.

[4]President's Energy Message, April, 1973.

Table 6-2
SOURCES OF ENERGY FOR IOWA AND THE UNITED STATES, 1972

Iowa		Percent of Total	United States	Percent of Total
Petroleum	(100%)	43.5	Petroleum	46
1. Transportation				
a. Motor Vehicles	(64)			
b. Other Transportation	(15)			
2. Nontransportation	(21)			
Natural Gas	(100%)	37.2	Natural Gas	32
1. Household and Commercial	(46)			
2. Industrial	(31)			
3. Electrical Utilities	(22)			
4. Pipeline Fuel	(01)			
5. Losses	(-)			
Coal	(100%)	18	Coal	17
1. Household and Commercial	(02)			
2. Industrial	(21)			
3. Electrical Utilities	(65)			
4. Oven Coke	(11)			
Hydroelectricity		01	Hydroelectricity	04
Nuclear Power		-	Nuclear Power	01
Total:		100%		100%

Source: President's Energy Message, April, 1973.
Governor's Conference on Iowa in the Year 2000, *Energy in Iowa's Future*.

Natural Gas: In 1973, it was estimated that Iowa used more natural gas than any other energy source (approximately 41.8 percent).[5] All of which was distributed by local gas service companies from the major gas transmission pipeline that connects the gas fields of the southwest with the populated urban markets of the north. The majority of "firm" gas[6] supplied was distributed to households and commercial business with industry (including agriculture) consuming additional allotments of firm and a large amount of interruptible gas service. At the present time, natural gas presents the greatest threat of an energy shortage, as evidenced by the curtailment plans of 17 national natural gas pipelines (out of a total of 42) filed with the Federal Power Commission. At the present time, the critical national status of natural gas availability is being addressed by the Administration and Congress through the proposed deregulation of natural gas and investment tax credits as seen in President Ford's State of the Union Message of January 15, 1975.

Petroleum: Petroleum products are imported by the state where they are primarily used for transportation--air, barge, railroad, and automobiles. During the heights of the oil embargo in January and February, 1974, the supply of gasoline and other fuels was available at prices reflecting a 40 percent increase. The 21 percent of nontransportation petroleum use results from space heating uses by rural residents and large institutions (e.g., hospitals, schools, etc.).

Electricity: Electricity in Iowa is generated by coal (55 percent), natural gas (37.5 percent), hydropower (four percent), and LPP and distillate (1.5 percent). The largest consumers of electricity are households and commercial businesses, followed by the industrial sector. Due to the lack of nuclear power plants and suitable locations for additional hydroplants, Iowa's electrical generators are almost solely dependent on those fossil fuels which are in the greatest demand nationally.

Regional Energy Profile

The form and substance of national and state energy problems may alter considerably upon closer investigation of energy-related issues within smaller and more definable geographic areas. For example, when there were substantial gasoline shortages in major metropolitan markets (e.g., Chicago,

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[5] Energy Facts for Iowa, Iowa Geological Survey, December, 1973.

[6] Firm gas is a contracted or set amount of gas which is supplied by the distribution company to a consumer with fixed service. Interruptible gas is a gas allotment that is not contracted for due to the uncertainties of weather and supply, but while supply lasts, gas service is received.

New York City, and Washington, D. C.), many smaller communities experienced only slight inconvenience. There are many reasons for this dilution of the national energy problems within smaller geographical areas:

1. The management foresight and policies of the various energy distribution companies.

2. The lack of readily available alternative energy sources to meet consumer demands at an economically feasible rate.

3. The lack of a growing demand as a result of population pressures.

4. The tendency for large industrial consumers to utilize a variety of alternative energy sources for various production purposes.

Energy supply as a factor of economic development for the Southeast Iowa Region is not creating the same problems for its residents, businesses, and industries that are being experienced in the more densely-populated areas of the country (e.g., the northeast region--Boston, New York City, Philadelphia). During the last year, while energy consumption within this particular service area of the various distribution companies reached record levels, energy conservation measures undertaken by consumers generated savings that ultimately benefited the region. These energy savings have created additional capacity for potential distribution to new consumers, interruptible consumers requiring "firm" energy commitments, or the maintaining of comparable levels of energy cost as experienced in the previous year.

While a great deal of uncertainty prevails about the amount and types of future energy supplies, discussions were held with the various energy distribution companies within the region to determine firsthand their perspective on current energy availability. Interviews with company officials were combined with data collected on the current (1973) energy utilization levels of major industrial clients within the region. The identification of energy needs of present and potential industrial consumers that would be most negatively impacted by a curtailment in local energy availability will become a potential criteria in the evaluation of any economic development strategy for the region (see Table 6-3).

The Southeast Iowa Region is served by many energy companies that provide overlapping distribution service to distinct geographical areas. The major energy distribution companies for the region are discussed below.

Natural Gas

Natural gas for the region is obtained from the Michigan-Wisconsin Pipeline Company and distributed by local gas companies. The Michigan-Wisconsin line, which crosses to the north of Louisa County, is a major transmission pipeline providing natural gas from fields in Texas and

Table 6-3
INDUSTRIAL ENERGY UTILIZATION FOR THE REGION, 1973

	Gas (CF) (100's)			Electrical (KWH)		
	Minimum	to	Maximum	Minimum	to	Maximum
Durable Goods	522		12,049,903	2,564		311,070,000
Lumber, Furniture and Related	1,562		389,980	4,838		4,524,000
Stone, Clay and Glass Products	7,881		295,391	5,170		2,625,580
Primary Metals Industries	1,859		191,858	58,758		311,070,000
Fabricated Metal Products	980		386,558	9,628		17,514,000
Machinery Except Electrical	875		1,842,399	18,334		16,189,200
Electrical Machinery	14,067		688,960	15,426		9,399,600
Transportation Equipment	132,370		132,370	828,471		3,475,000
Other Durable Goods	522		12,049,903	2,564		4,967,200
Nondurable Goods						
Food and Kindred Products	3,985		815,470	76,320		66,093,000
Apparel	-		-	-		-
Paper and Allied Products	216,104		710,280	3,342		30,032,000
Printing and Publishing	658		11,895	4,800		1,961,720
Chemical and Allied Products	5,032		13,750,000	3,738		118,809,000
Rubber and Miscellaneous Plastic Products	818		9,557	4,376		10,751,000
Other Nondurable Goods	-		-	-		-

Source: Barton-Aschman Interviews with area suppliers.

Oklahoma to the two major market areas of Detroit, Michigan and Milwaukee, Wisconsin (see Figure 6-5 and Figure 6-6). Along the course of its major southwest-northeast natural gas transmission pipeline, Michigan-Wisconsin serves a total of 52 local distribution companies such as Keokuk Gas Service, Iowa Southern Utilities, and North Central Public Service.

Within the region, large industrial consumers utilize natural gas for three principal purposes:

1. Primary input into a production process (e.g., methane for fertilizer production).

2. Necessary component of the production process (e.g., heating kilns for drying of painted school buses).

3. Input to heating and air-conditioning plant equipment.

The future availability of natural gas to meet energy demands of the region will depend in large part on the success of new exploration and production ventures being undertaken by the Michigan-Wisconsin Pipeline Company and new energy policies adopted in Washington, D. C.:

1. New exploration and investments. Michigan-Wisconsin has adopted a three-pronged attack to increase the future potential of natural gas. For the short-term (one to two years) it is counting on natural gas rights purchased from off-shore Texas and Louisiana lots. During the intermediate period (three to four years), the company is proposing to bring more arctic slope gas down through Canada and into the mid-west. And, for the long-term (five-plus years), the company is counting on coal gasification technology to convert North Dakota coal into artificial natural gas for domestic consumption.

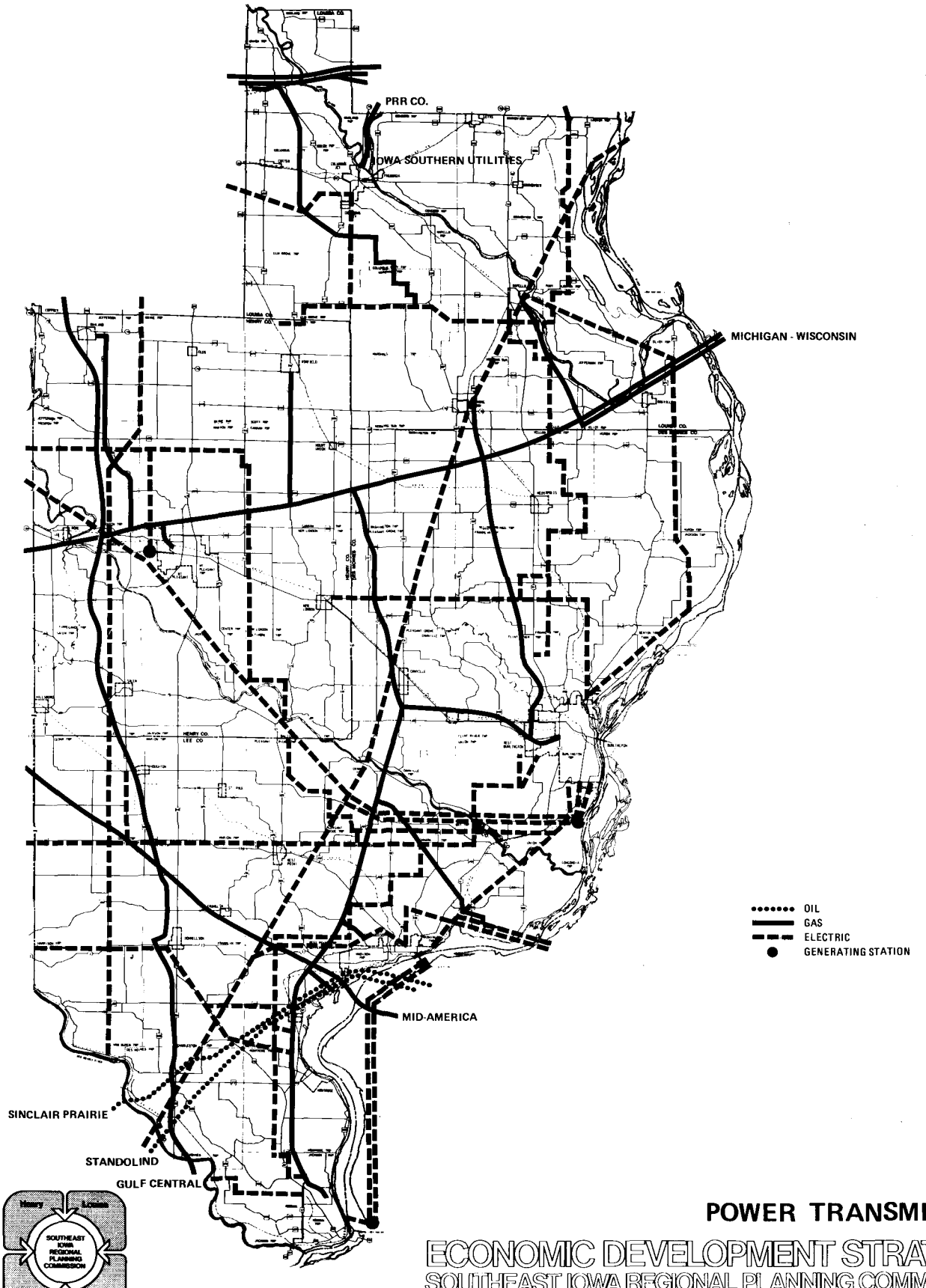
2. Deregulation of prices. There has been much discussion by economists and private energy companies regarding the deregulation of interstate natural gas. Deregulation would allow natural gas prices to reach their own level in the market, thus increasing the monetary reward for new exploration of natural gas. Industry leaders expect the price of interstate gas to increase anywhere from two to three times present local rate levels. The inflationary impacts of such an increase would not only be detrimental to the average residential consumer, but would necessitate further price increases for industry that would ultimately be passed on to the consumer.

In general, the future plans of Michigan-Wisconsin represent an aggressive corporate attitude regarding the natural gas energy needs of its clients. It has continued to invest in new opportunities that will ultimately create new natural gas resources.

At present, neither Iowa Southern Utilities nor North Central Public Service feels that they have sufficient excess capacity within their

MICHIGAN-WISCONSIN NATURAL GAS PIPELINE SYSTEM

Figure 6-5



POWER TRANSMISSION

ECONOMIC DEVELOPMENT STRATEGY
SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

BARTON-ASCHMAN ASSOCIATES, INC. SEPTEMBER, 1974

Figure 6-6

natural gas allotments to serve a potentially large industrial customer requiring fixed amounts of gas as indicated in the upper ranges of Table 6-3, noted above. Keokuk Gas Company appears to have some capacity for serving interruptible clients wishing to "firm-up" their service requirements or to extend new interruptible commitments to moderate demand industrial users.

North Central Public Service primarily serves the Fort Madison area and the Cities of Donnellson, West Point, and Denmark. While gas supply is sufficient for existing firm customers, gas for large interruptible industrial users is restricted. Recently, there has been minimal curtailment to interruptible clients during peak usage days.

Iowa Southern Utilities is a full-service gas and electric distribution company that provides energy in an area bounded on the west by Crescent, Iowa; Highway 2 on the south; and Wapello on the north. Gas supply is sufficient for existing customers and for moderate expansion. Large industrial clients seeking substantial commitments have been refused. The 1.2 billion cubic feet of natural gas used by the Iowa Army Ammunitions Plant has not been reallocated by the Federal Power Commission.

Keokuk Gas Service is a distribution company primarily serving the Keokuk area. Gas supply is sufficient for firm customers and for moderate expansion of gas service opportunities to potential clients. During the last year, there was minimal curtailment of service to interruptible clients.

Electricity: While the distribution of electrical service remains with local companies, the generation and transmission of electricity to the region results from a complex series of scattered conversion plants providing high voltage transmission service through interlocking lines. The major energy source for these electrical generation plants is coal, backed up by the capability to burn oil and/or natural gas during periods of low coal stockpiles. Currently, the major source of this find is Wyoming coal, due to a lower sulfur content that either the Illinois or Iowa coal which had been burned prior to the enforcement of air quality standards.

The future availability of the coal resources required to generate electricity may be more immediately known and quantifiable, but it is also dependent upon a variety of constraints. While national coal supplies are substantial, sufficient to last 100 to 200 years (some scientists claim 500 years) at current rates of production,[7] the supply of high-grade, low sulphur coal is limited. Lower grade coal is immediately accessible in vast areas of Wyoming, Colorado, and North Dakota, where strip-mining will have to be employed to maintain the present cost

[7]Governor's Conference on Iowa in the Year 2000, *Energy in Iowa's Future*, October, 1973, p. 6.

incentives for the extraction of this low-grade coal. To preserve the environmental air quality standards, however, the electrical utility companies will have to make sizeable investments in desulfurization and wet scrubbing technology in order to convert the more abundant and less expensive coal. If these investments can be made under the existing rate restrictions imposed by both the federal and state regulatory commissions, then electrical supply will keep pace with the consumption projections for the region.

The region is served by three major electrical companies: Iowa Southern Utilities, Union Electric Company, and Rural Electric Cooperative Association. Prior to construction of a coal conversion electrical generation plant near Burlington, Iowa Southern Utilities purchased wholesale electricity from Union Electric Company. With the interconnection of heavy power transmission lines, there is sufficient electrical capacity to serve existing and potential customers. Iowa Southern Utilities wholesales electricity to rural electric companies and municipal electric companies. The company obtains most of its fuel for electrical generation from strip-coal mines in Montana, Wyoming.

Union Electric Company is a major midwest electric utility company headquartered in St. Louis that provides electrical service to Lee and various portions of Henry and Des Moines Counties. While operating a hydroelectric plant in Keokuk, much of electrical generation results from the conversion of Wyoming coal in other plants. Through the interconnection of electrical generation plants and transmission lines, there is sufficient capacity to serve existing and potential clients.

Rural Electric Cooperative Association is a rural distribution company that serves all four counties in the region. This company lacks electrical generation facilities of its own and is dependent on the other two electrical utilities for its wholesale electricity supply. However, the biggest, Eastern Iowa Power Cooperative generates its own electricity from Montpelier. Eastern Iowa's coal source comes from Southern Illinois.

Like other energy sources, electricity is also susceptible to inflationary pressures which must eventually be passed on to the consumer as additional electrical service costs. The price of coal and equipment used by electrical plants serving the region is under continuing inflationary pressure. Notwithstanding these pressures and increasing utility demand for low sulfur coal, both Iowa Southern Utilities and Union Electric Company expressed optimism about availability of electric energy in the future.

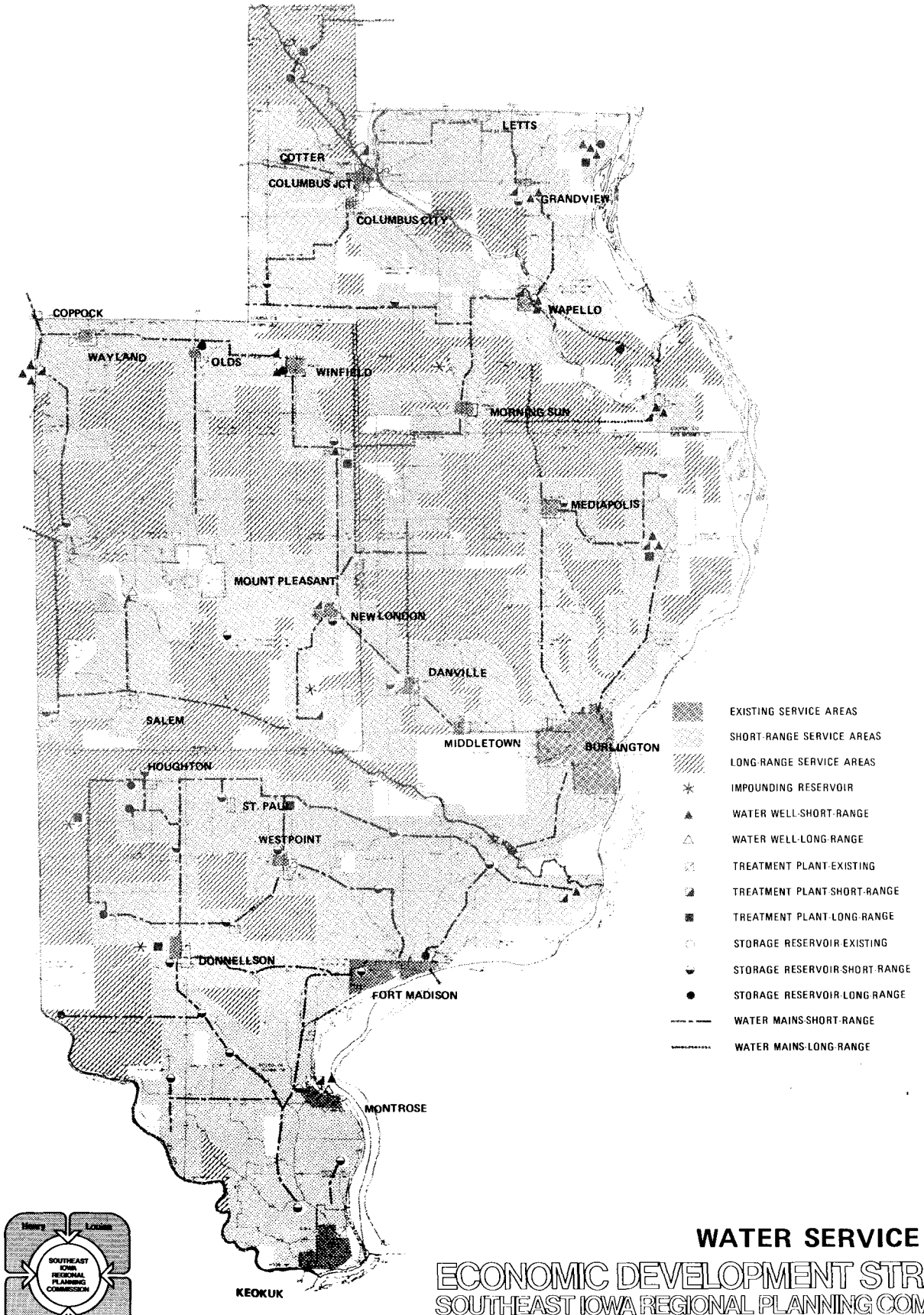
Petroleum: There were no quantifiable shortages in petroleum products that would indicate potential restrictions for future development. Petroleum products have increased substantially in price, gasoline by 40 percent, and propane by 23 percent. This increase in price has been a factor in lowering the demand as users strive for conservation as a means to save dollars. Propane is a natural product of petroleum that is primarily utilized by rural homes for space heating in areas not served by gas mains. Likewise, propane is the major fuel source used in the drying

of agricultural products, such as corn, soybeans, and other grains. Since much of propane consumption is tied to the harvest cycles of the agricultural season, constricted supplies have occurred mainly during peak periods. Distribution of petroleum products in the region is handled through a diversified network of usually small entrepreneurial businesses (i.e., gas stations, propane service companies).

WATER AND SEWER SERVICE AREAS

After reviewing the region's comprehensive county water and sewer plans, it becomes evident that even the projected short-range improvements would represent a major expansion of water service throughout the region (see Figure 6-7). Further analysis reveals that current county water and sewer plans are not anticipating industrial expansion in the proposed large area of service since (1) the lines are not sufficient size in most cases to provide proper amounts of water for industrial fire protection purposes or for processing water, and (2) the projected sewer service areas are not contiguous with water service areas. Industrial level infrastructure (sewer, water, highways, and energy) appears sufficient or feasible only in areas of existing urbanization (i.e., Burlington, Keokuk, and Fort Madison). Provision of sewer and water to industrial sites will, as a matter of cost, control the industrial site dispersion in the region. The need for treated processing water by some industries throughout most of the region will further force those industries into urbanized areas where water treatment facilities exist.

Figure 6-8 indicates existing and proposed sewer service areas. Much of the proposed sewer expansion (as measured in acres) represents service to existing and unserved or developing residential areas as opposed to industrial expansion. This is common in county-level sewer plans. Municipal sewer and water systems generally require "tap-in" to the existing city system for most major industry types as opposed to systems under county jurisdiction or special district jurisdiction. The county sewer and water plans represent a statement of how the region will urbanize in a general sense. The proposed water extensions represent a major potential for sprawled residential development. So sprawled, in fact, when compared to population trends, that the entire short-range system will probably be difficult to finance by traditional methods. Those traditional methods are special tax assessment districts or utility bonds or a combination of the two techniques. If only water is extended and sewer is postponed, the result will be private septic tank systems or package plant systems in many areas not suitable for such private sanitation systems. This raises certain ecological questions, particularly with respect to stream water quality. Although this has no direct bearing on industrial growth or economic expansions, it could work against one of the key indirect attractiveness factors for the region--the quality of life.



SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

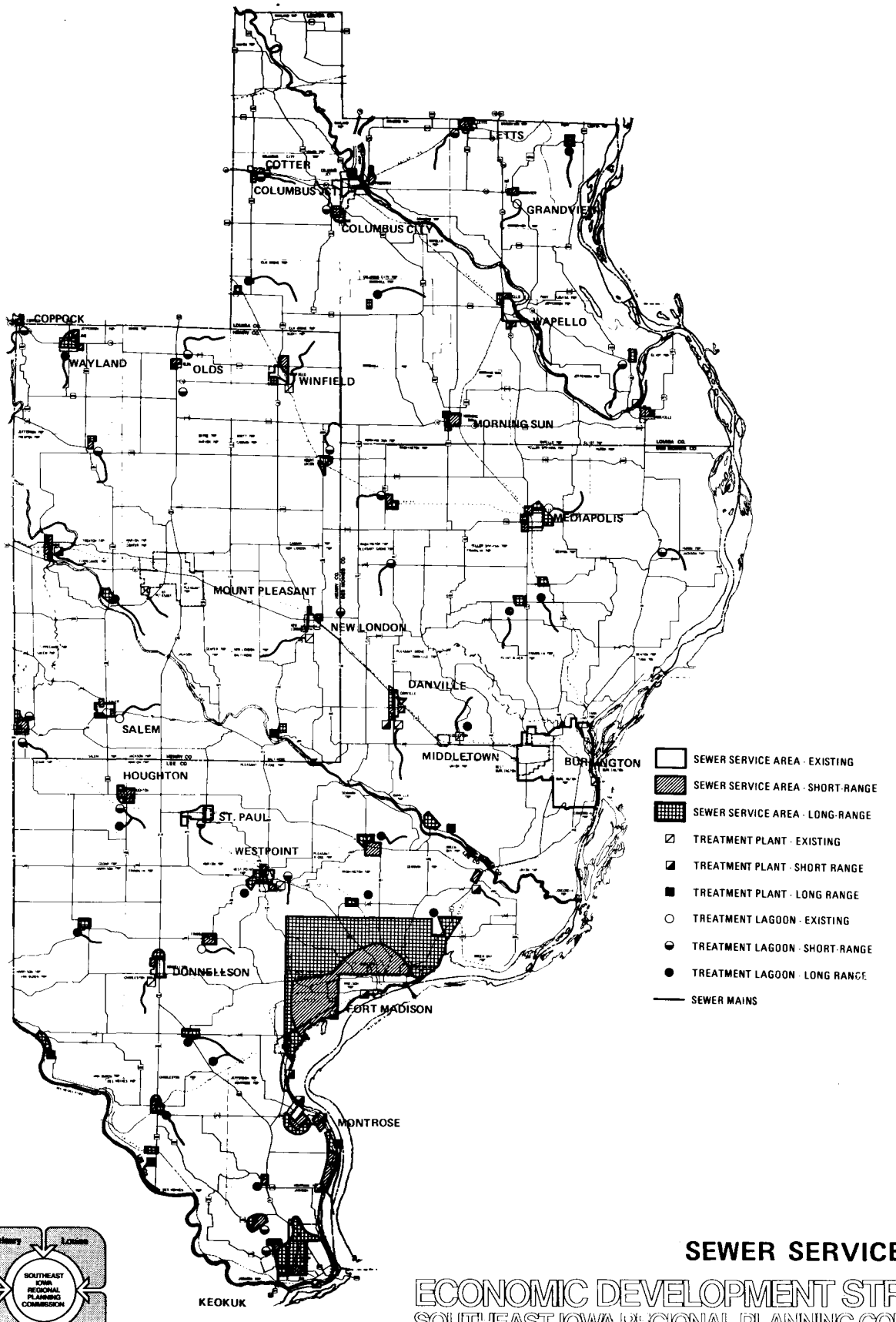
WATER SERVICE AREAS

ECONOMIC DEVELOPMENT STRATEGY

SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

BARTON-ASCHMAN ASSOCIATES, INC. SEPTEMBER, 1974

Figure 6-7



SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

Henry · Louisa · Lee · Des Moines

SEWER SERVICE AREAS

ECONOMIC DEVELOPMENT STRATEGY
SOUTHEAST IOWA REGIONAL PLANNING COMMISSION

BARTON-ASCHMAN ASSOCIATES, INC. SEPTEMBER, 1974

SCALE IN MILES

Figure 6-8

All county seat communities in the region have water and sewerage plant facilities of ample capacity to serve anticipated development for the next decade--an industry with very large water and sewerage requirements (e.g., a grain processing plant) would be an exception. During this period, water and sewer infrastructure investment will relate primarily to repair, upgrading, and expansion of existing distribution and collection systems.

In terms of both extension and capacity, the Burlington water distribution system is considered adequate to meet any foreseeable future demands. The water plant, which was constructed between 1965 and 1967, is not expected to require major improvements over the next decade. The city sewerage plant, which was constructed in 1959, is also considered adequate to meet future development requirements. The sewerage system is currently under study to determine to what extent the storm and sanitary waste water can be separated and to develop a timetable for the construction of a secondary sewerage treatment facility by 1978. Both in terms of line extensions and their capacities, industrial requirements for sewer and water utilities can be met within the industrial park area west of Roosevelt Avenue.

The capacity of the Fort Madison water and sewerage plants is adequate for projected future needs. All sewerage treatment facilities have been constructed since 1968, and although the city water plant was built in 1918, major upgrading occurred in 1955 and 1970. The city is also in the process of expanding its sanitary treatment plant to include secondary treatment. Repair and upgrading of the existing distribution and collection systems, and expansion of these lines into a section of northwest Fort Madison are anticipated during the next 10 years.

In the Keokuk area, the capacity of water and sewerage treatment plants will meet any foreseeable future demand. With the projected addition of secondary treatment capacities in 1975-1976, the city sewerage plant will meet federal pollution requirements. To stimulate additional industrial and residential growth, however, Keokuk anticipates major investment in a sewerage trunk line along Soap Creek. There is also a recognized need to update the existing collection system over the next 10 years. For the most part, Keokuk's water distribution system adequately services areas of potential growth.

The water and sewerage capacity of Mt. Pleasant is adequate to meet any foreseeable growth in industrial or residential demand. In 1969, Mt. Pleasant built its present sewerage treatment facility, and in 1973 the city constructed a major water pumping and treatment station at Oakland Mills. Water distribution problems exist on the west side of the city near the Blue Bird and Superior Continental plants; however, these problems are expected to be corrected during 1975. Unfinished needs include major investments in the expansion of distribution and collection systems for existing and future residential development.

Wapello is currently upgrading its water system. A new half million gallon water tower is being constructed to meet existing and future needs. Limitations on the supply and quality of water exist, however, and may require further investment. The capacity of the sanitary treatment facility is adequate to meet residential and limited industrial growth.

As a general statement, it can be said that most of the small communities in the region have substantial requirements for water and/or sanitary sewer service that have not yet been met. These needs are primarily the result of new residential development, worn out facilities, and federal environmental quality control requirements. Relatively speaking, during the next decade large financial outlays will be required in many of these communities.

MINERAL AND RECREATION RESOURCES

Mineral Resources

Iowa ranked third in 1968 in the amount of crude gypsum produced in the nation at a 1968 dollar value of $5,838,000. Gypsum occurs in the Devonian stratigraphic horizon. The region possesses large quantities of gypsum products. The far northeast portion of the region contains no significant resource. The only reported mine in the region is near Sperry, Iowa, in Des Moines County. Most gypsum production occurs in the Fort Dodge, Iowa area. However, the region has large supplies of limestone which is mined primarily for road construction purposes and building materials. Minor amounts are used in the agricultural industry or cement production throughout the state. Interviews with Raid Quarries in Burlington suggest that sand, limestone, and dolomite are used primarily for engineered base in road and building construction and such resources are used within a 10-mile radius of the quarry due to transportation economies. Exportation of minerals from the region is presumed to be insignificant. Sand quarries are located near Spring Grove in Des Moines County south of Fort Madison, west of Keokuk, and near Vincennes in Lee County. This product is largely consumed locally for the production of concrete.

Though no significant amounts of natural gas are known to exist in Iowa, the geology permits underground storage as part of an interstate gas supply network. This does not represent a major resource or economic activity for the region.

Iowa produces a small amount of the coal consumed in the state--about 15 percent. The coal producing area lies west of the region and provides no value-added benefit to the economy. Similarly, no clay, shale, or sandstone are produced in the region in any appreciable quantities.

Recreation Resources

Iowa has an unusual role in the recreation industry in that it acts more as a "bridge" than a source of destinations for the national recreation traveler. The southeast portion of Iowa does represent an interesting topographical and historical segment in the total Iowa inventory of natural and recreational areas. Several areas of archeological interest, as listed by the Iowa Conservation Commission, exist within the region. These sites include the original town site of Fort Madison in Lee County, Jollyville Hill Mounds (now destroyed) in Lee County, Smith Village Site, and the Toolesboro Mounds in Louisa County. These attractions represent yet untapped tourism attractions. Other attractions which could represent a network of tourism attractions are:

-- Geode State Park, the site of natural geode stones, near Danville.

-- Crapo Park in Burlington, the site of the first American flag in Iowa, circa 1805.

-- Site of the Old Zion Church used as the first Legislature Assembly in 1838.

-- The Harlan-Lincoln Home in Mt. Pleasant (former home of James A. Harlan and Robert Todd Lincoln).

-- Iowa Wesleyan College Museum in Mt. Pleasant.

-- The Keokuk River Museum in Keokuk.

-- Residence of Samuel F. Miller, Justice of U.S. Supreme Court, Keokuk.

-- Old Fort Madison replica, originally constructed circa 1808.

-- Swinging Bridge in Columbus Junction built over 100 years ago and restored in 1967 and Snake Alley in Burlington, Iowa.

-- The Heritage Museum, the site of the Old Threshers Reunion in Mt. Pleasant.

-- The Santa Fe Bridge in Fort Madison, world's largest deck span bridge.

-- The Great River Road, scenic and historic route along the Mississippi.

-- Lake Oddessa, duck hunting reserve near Wapello.

These state historic markers and points of interest represent a worthwhile resource to develop into a recreation/tourism package similar to river towns outside the region, i.e., Galena, Illinois and Nauvoo, Illinois and Hannibal, Missouri.

Iowa has two historic trails that could be developed for scenic or recreational purposes within the region. One of them, the Mormon Trail, passes through Louisa, Des Moines, and Lee Counties. The Iowa "mini-vacations" concept offers possible tourism promotions with its tour listed as No. 5 which links together many points of interest of a state-wide level including Geode State Park. The Hiawatha Pioneer Trail follows Routes 22, 99, 61, U.S. 218, 2, 16, U.S. 218 and U.S. 34, and links the major cities of the region together. Also, the Great River Road parallels the eastern section of the Hiawatha Pioneer Trail and also represents an interstate tourism element.

As gasoline prices rise, and as families utilize vehicles which consume more energy, the observed recreation trip length has been declining. This economic fact has caused many vacationers to take shorter trips. Many of the attractions of southeast Iowa could be "marketed" into vacation packages for persons living in Chicago and Des Moines. It is this market that should be studied as opposed to the national long-distance tourist industry.

HOUSING STOCK

The housing stock for the region is largely owner occupied (70 to 75 percent) and has a low vacancy rate for owner-occupied units and a high vacancy rate for rentals. The quality of housing in the region is highest in Des Moines and Henry Counties and poorest in Lee and Louisa Counties (see Appendix Table 5-6). Similar statistics are noted for over-crowding in the respective counties. The value of permits for new and remodeled dwellings in cities has been dropping since 1967 and 1968, reflecting fewer investments in housing (see Appendix Table 6-1).

Housing in unincorporated areas represents a large part of the new units constructed in the region over the last decade. Burlington accounted for only 41 percent of the Des Moines County growth, Mt. Pleasant accounted for 43 percent of Henry County's growth, and Lee County gained 611 units, while Keokuk lost 25 units. Fort Madison gained 89 units over the decade (see Appendix Tables 6-2 and 6-3).

The "undoubling effect" (the breaking up of families into smaller separate households) has been proceeding at a normal rate, with housing exceeding population growth by six percent in most areas. This does not demonstrate necessarily that a shortage or surplus exists in the housing stock.

The housing stock is generally older; approximately three-quarters was built prior to 1950. This undoubtedly explains the high vacancy rate in rental units since many are probably in need of renovation. The density ratio of new units is lower than the state average with substantially more single-family units comprising new unit starts over the decade.

Surveys conducted in August, 1974, indicated a tight housing market. Most industrial representatives noted a shortage of single-family units in the region. The Mt. Pleasant area led the region with respect to complaints regarding housing shortages. Such shortages were apparent even before the tight mortgage money market appeared, suggesting a sluggish home building industry. It is quite likely that a pent-up housing demand exists in the region for moderate income, single-family ownership units and moderate income townhouse rental units.

MUNICIPAL PROPERTY TAXES

A factor in the site selection process for both industry and employees, is the amount of real property tax paid to municipalities versus the public services and facilities provided by the municipality in Iowa, the property tax on real estate constitutes the major source of municipal revenues to finance ongoing services and major public improvements. Therefore, an examination of the 1973 real property tax millage rates and assessment practices of municipalities in and bordering on the region, provides a perspective on the competitive position created by this public revenue system.

Table 6-4 indicates the range of real property tax rates, assessment rates, and calculated tax paid for a variety of municipalities. The municipalities in Illinois and Missouri have a real estate tax rate structure approximately 50 percent of the comparable rates of towns located in the region. While a proportion of this real estate tax rate is equalized through a system of slightly higher assessment practices, the differentials on taxes paid on a $30,000 market value residential property are substantial. In Iowa, an owner could expect to pay anywhere from $817 (Fort Madison) to $1,029 (Mt. Pleasant). On a similar home, outside the region, the owner could expect to pay $519 to $699 in Illinois; $126 to $488 in Missouri. It should be noted that in Iowa the heavy burden of municipal real property taxes is lessened through an exemption clause in state income taxes.

The various property tax rates paid by corporation and individuals in the region becomes a very strong selling point to newcomers. The circular phenomenon of municipalities capturing corporations wishing to make substantial capital investments has the ultimate impact of containing the property tax rate of that particular municipality while the other tax rates continue to increase. The acquisition of new property tax ratables provides further spin-offs by allowing for public improvements and service increases in that municipality. The industrial momentum that is created can become overwhelming to other municipalities unless there are other site selection factors which negatively influence expansion (e.g., transportation, labor, energy issues).

To optimize industrial and residential land development decision-making in the region, a more equalized system of property tax rates should be developed. Likewise, the region should aggressively seek state legislative approval of local option taxing, in order to alleviate the heavy reliance on such an interregional competitive system.

Table 6-4
COMPARATIVE MUNICIPAL PROPERTY TAX RATES AND ASSESSMENT VALUES

Municipality	Property Tax Rate--1973	Assessment Rate--Percent	Property Taxes on $30,000 Market Value Residence
Iowa			
Burlington	$117.196/$1,000	27	$ 949.28
Keokuk	124.588/$1,000	27	1,009.16
Fort Madison	100.414/$1,000	27	817.40
Mount Pleasant	127.151/$1,000	27	1,029.92
Wapello	103.592/$1,000	27	839.09
Illinois			
Quincy (urban)	$ 4.6663/$100	50	$ 699.94
Hamilton (rural)	4.6496/$100	40	557.95
Warsaw (rural)	4.3256/$100	40	519.07
Missouri			
Kahoka	$ 4.88/$100	33	$ 488.00
Kirksville	1.40/$100	30	126.00

Source: Barton-Aschman Associates, Inc., 1975.

7.
IMPACT OF EMPLOYMENT REDUCTION AT ATOMIC ENERGY COMMISSION/ IOWA ARMY AMMUNITION PLANT

The purpose of this section is to evaluate prior studies, reports, and data relative to employment reduction at the Atomic Energy Commission facilities and the Iowa Army Ammunition Plant. Both of these facilities are managed by Mason and Hanger-Silas Mason Company, Inc., under government contract. The IAAP facility is located approximately 10 miles west of Burlington on U.S. Highway 34 near Middletown and consists of 19,326 acres, 1,500 of which are under the control of the AEC. The analysis was divided into two separate sections due to the uniqueness of the employment experience.

SUMMARY OF FINDINGS

The impact of the closing and/or reductions in employment do not appear to be major. The reasons for this conclusion are as follows:

1. Although the level of employment at the IAAP in 1968 was high, the facility was not an important aspect of the local economy. The employment was short in duration and probably perceived as such by local retail and service establishments. No evidence exists that any local supplier placed so much reliance on the AEC or IAAP, that the closing of these facilities represented a major economic setback. This was supported by a 1974 survey of local business conducted by the Small Business Administration.

2. The nature of the wage structure and geographical distribution of IAAP employees resulted in a broad distribution of the impact--that is, the effect was not concentrated in a single geographical area.

3. Pertinent indicators of an economic slump in the region extending over the period of 1968 to the present are not evident. These indicators include chronic unemployment, lowered commuting rates, lower income profiles, reduced retail trade, out-migration after one year, and shifts in the housing stock.

4. Since military- and defense-related facilities are characterized by fluctuating employment levels geared to a national defense policy, it could be argued that reduction of the Army Ammunition Plant operations is desirable in view of subsequent, more stable reemployment in local industries. The regional economy should not be subject to the serious fluctuations that occurred in the decade of the 1960s.

5. The major concern with respect to the IAAP is that the operations may be put on "standby" status. The remaining employees are older and predominantly long-term residents of the region, thus reemployment and relocation would be a major concern as opposed to direct or induced economic impact on the region. Information on this aspect of the operation has been requested from the IAAP and Mason and Hanger-Silas Mason Company, Inc., to prepare a contingency plan.

REVIEW OF DATA AND REPORTS

To date, four separate documents have been prepared to evaluate the impact of cutbacks at the Army component of the Ammunition Plant or the closing of the Atomic Energy Commission facility. Detailed information about the Iowa Army Ammunition Plant may be obtained from this source. This report is a condensation of the following studies:

1. *Report of Community Visit*, Office of Economic Adjustment (relative to IAAP), June, 1971.

2. *Current Economic and Population Data Regarding AEC Facility Closure*, BADCO, 1973.

3. *Report on the Economic Impacts on the Surrounding Area of the Closing of the AEC Facility in Burlington, Iowa*, U.S. Atomic Energy Commission, December, 1973.

4. *Report on Economic Adjustment Program, Burlington Region, Iowa*, Office of Economic Adjustment, May, 1974.

Each of the above is based upon current data, where available, although the conclusions drawn in each do not in all cases agree. Probably the most important point to be made is that the studies are focused on measuring two different impacts--a reduction in employment of approximately 969 persons as a result of the AEC closing and a reduction in the AEC/IAAP Army work force from 8,003 in June, 1968, to approximately 1,250 on July 1, 1975.

Neither official government study attempts to combine the impacts of reductions at both facilities. The first listed report prepared by the OEA does not approach the problem at the same level of detail as the AEC reports.

The AEC study concludes that the net indirect and induced effects of the AEC closure constitutes a $1,282,000 permanent loss of residentiary earnings with an equivalent job loss of 135 employees in addition to the 100 transfers to other AEC facilities out of the region. (See Appendix Table 7-1.) This conclusion is based on the assumption that all separated but untransferred employees would be reemployed in the local economy. The history of unemployment rates in Des Moines County supports this premise.

The 1971 report of the Office of Economic Adjustment covers the reduction in IAAP operations and indirect or induced earnings losses from either reduced payroll or from reduced procurement. Reported local procurement (annual average) appears lower than recent AEC procurement levels.

The analysis of impacts on residentiary earnings is quantified in the AEC and the OEA reports. The figures are approximations and are not based upon a detailed analysis of the local economy. Studies of closings of similar types of installations have shown, for example, that the employment multiplier can range from 0.2 to 3.0 for civilian labor force reductions. A thorough analysis of the effects of reductions could have been conducted during the IAAP slowdown from 1968 to the present. The multiplier of 1.678 is close to the national average multiplier for all manufacturing employment. This figure cannot be supported without the above-mentioned analysis of locational factors.

Further conceptual improvements could have been made in the OEA study in 1974. These are as follows:

1. The loss of employment to the region was set at 100 for purposes of calculating the secondary impacts. If the 750 separated employees seek employment in Galesburg or Davenport as opposed to Region XVI, this would represent a loss of retail trade and related services. Such a condition could dramatically raise the multiplier for indirect impacts and subsequent service employment losses.

2. The OEA study of 1974 is based upon AEC projections of employment impact. The latter study estimates that 87 jobs will be lost due to construction and procurement cessation. In an expanding employment and fixed labor force situation such as Burlington, Keokuk, Fort Madison, and Mount Pleasant, the actual available labor force must be viewed as limited in numbers. As labor becomes available from separations at the AEC, it allows local industries to bid for such labor and expand facilities. This expansion of facilities most probably represents reemployment opportunities for local contractors and procurement suppliers. One could argue effectively that the shifts caused by the AEC have had a healthy effect on the construction industry although a lag between cutbacks and industrial expansion is likely.

It is probable that these two factors tend to cancel out each other. However, the retail and service sectors would be affected more than construction industries after one year. This appears to be supported in the data but only on a short-run basis.

A major element of missing information relates to the character of the reduction of employment at the IAAP from 6,938 (AEC annual plant operations figures) in fiscal year 1968 to 1,880 in fiscal year 1973. This represents a reported employment drop of 5,058 from a single employer over a five-year interval. Most of the reduction occurred in 1969, 1970, and 1971. Employment data for the period 1964 to 1972 for the four counties and the region indicates that a shift in manufacturing employment accounts for most of the changes in total employment. Ordinance work is classified as manufacturing employment. This data is collected by place of work and excludes farm workers, railroad workers, and government employees. Further, it is apparent that most of the shift occurred in Des Moines County--the location of the IAAP work force.

Such a rapid employment drop would suggest the following area-wide effects:

-- High and possibly chronic unemployment rates
-- Lowered commuting rate patterns into Des Moines County
-- Lower county and regional income profiles
-- Reduced retail sales when compared to state figures
-- Out-migration after one year
-- Shifts in housing stock vacancy rates

It does not appear that a chronic unemployment situation was created by the closings or cutbacks (see Appendix Table 4-6). Seasonal unemployment may appear high at the times when many persons were released from the IAAP because farm employment also was declining and other industries were closing as well, i.e., the Sylvania Plant. The apparent reemployment experience can be partially explained as follows:

1. There was a high incidence of commuting among the work force at this time. Approximately 600 to 700 of the 1,221 displaced employees lived outside the region in 1970. Approximately 464 of the 600 to 700 were from out of state. The radius of residence of displacees was so great as to create within this radius substantial nonfarm employment opportunities even though unemployment is recorded in the county of last employment.

2. Data is not available on the age, sex, or prior work history of the IAAP employees. It has been suggested that many were female and part of a "semi-invisible" work force. No data is available to support this conclusion.

Regarding commuting differentials, Appendix Table 4-4 indicates only decennial commuting differentials and is not particularly sensitive to past IAAP fluctuations.

From the State of Iowa Department of Revenue, adjusted gross income data has been obtained for fiscal years 1969 through 1972. (See Appendix Table 7-2.)

The average adjusted gross income per reporting unit restated in 1967 dollars for each of the four counties and the state indicates that the adjusted general welfare of tax paying units in the region parallels that of the state. Des Moines County has a higher average than the state for all reported secular years.

Retail sales figures from the State of Iowa are shown in Appendix Table 7-3. These figures have been deflated to constant 1967 dollars. The constant dollar sales were down slightly in the years 1969, 1970, and 1971 and returned to or exceeded 1968 levels in 1972. This corresponds with IAAP employment cutbacks. However, Appendix Table 7-4 shows that only 1968 and 1973 are reversals of state trends. Figures for 1969 through 1972 parallel the state trends quite closely. The state trends reflect general retail consumption patterns and general economic conditions and represent a good trend-measuring device. The correlation of IAAP cutbacks and reduced retail sales is only partially supported by the data and variations are so slight as to be unconvincing as an explanation.

Data on out-migration after one year is not available, since the Census of Population is taken on a decennial basis. Since 1960 and 1970 are not relevant years to examine, no conclusion can be drawn relative to the IAAP employment levels. Further, housing vacancy rates are not recorded, except on a decennial basis and no conclusions can be drawn from census data. It is fairly common knowledge based on industrial interviews and from the Burlington Department of Planning and Community Development, Relocation Division, that housing is in critically short supply and has been since 1970. This factor tends to support the concept that little family out-migration occurred due to IAAP or other closures, i.e., the Sylvania Corporation Plant. The tight housing market can be largely explained by a fairly high undoubling rate in the region. The decennial out-migration for the region is lower than the state generally, with only Lee County exceeding the state average for the decade. Secular fluctuations between 1960 and 1970 are not known.

No substantial negative impacts of a long-term nature can be identified or anticipated. This condition does not parallel many national experiences where military- and defense-related operations have been terminated (particularly in isolated areas similar to Region XVI). The principal reasons for this reversal of the national trend are as follows:

1. As a result of the types of jobs as well as the fluctuations in IAAP employment, the local economy was not dependent on the facility. A recent Small Business Administration survey of local business supports the theory by showing practically no projected employment reduction as a direct result of the closures or cutbacks. On the other hand, because the AEC employment was more stable and long-term, local contractors and suppliers did rely on the facility as a source of business. The IAAP peak of 8,003 employees in June of 1968 was only short-term and did not persist long enough for a large service industry in support of this activity to be created. Local suppliers were dependent on the AEC operation to a greater extent, but the employment was smaller then at the IAAP operation.

2. The region developed a fairly effective economic development program that resulted in expansion of the non-defense manufacturing employment base. This approximately coincided with defense layoffs for non-commuting local residents who form the resident work force. Normally, reconstruction efforts connected with the closure of similar facilities have occurred after the fact, thus causing a crisis situation. This has not been a problem in the region.

3. Though data does not exist in sufficient detail relative to age, sex, payroll, wages, etc., on the IAAP work force from 1968 to the present, it must be assumed that the work force had two components--a permanent component and a temporary component. The temporary component in all likelihood was lower skill and dispersed widely over the area and even outside the region and state. Hence, the normally expected slumps in service-related employment earning did not occur in the magnitude that the actual employment figures might suggest.

Many economists and planners now believe that defense-related employment is not necessarily a healthy economic factor in any region. Such facilities have a tendency to dominate total manufacturing employment as a percentage, and national defense policy causes employment fluctuations which a restricted local labor cannot adequately accommodate. Further, defense employment generally offers a higher wage scale than can otherwise be offered competitively by local manufacturers. Such a wage scale tends to inhibit expansion of local industry and prevents new employers from entering the area because the labor supply is tight. When a defense cutback occurs (which now appears to be a national trend), an area may be in a poor posture to recover, since similar, non-defense employment opportunities have not been cultivated. Similar closings in larger metropolitan areas do not disrupt the economy as much because they do not dominate it in numbers of employees nor in competitive wage structure. However, in remote areas, the dominance has often been intense and local industrial facilities were unable to absorb the discharged employees.

Many economic recovery efforts have been geared to reuse of the land and/or facilities of closed government installations. In the case of the IAAP facility, it is very unlikely that the land would be turned over to the General Services Administration (GSA) to be put on the excess list. The current installation is quite extensive and represents part of the defense mobilization network. A more likely course of action is that the operation will be put on a standby basis and the work force reduced to a skeleton crew for security and maintenance purposes.

As stated previously, local planning agencies should make every effort to obtain information regarding the future status of IAAP so that a contingency plan can be developed. It would appear that the potentials for reemployment of this residual work force would be a problem far outweighing the secondary or induced effect on the local economy.

8.
INSTITUTIONAL INVENTORY

Regional institutions which provide facilities or sponsor projects that directly affect the prospects for overall economic development are described in this chapter. The areas discussed include education, health care, industrial development corporations, and federal programs in the region.

SUMMARY OF FINDINGS

The regional career educational programs appear to be adequate. However, a better flow of information between employers and persons developing curricula would be advantageous. The primary and secondary school system is generally excellent with high literacy ratings and high educational achievement ratings. Per student expenditures in the school system are high and class sizes are moderate to low. Major universities offering advanced degrees are located primarily outside the region. This is a disadvantage in attracting new firms with highly skilled personnel because professional employees ordinarily seek facilities for advanced degrees or continued postgraduate study programs and are attracted to those business firms which are located in areas where such facilities are available.

The health care system was rated as satisfactory to poor by industrial interviewees. There is not, at present, a well-developed emergency care system and, generally, there is a shortage of physicians and specialists, particularly in rural areas. Preventative care is nonexistent in the region. Industrial managers reviewed this situation as a potential impediment to further economic growth. Other areas of Iowa appear to be implementing health care plans such as those needed in the region.

The industrial development information network in the region functions well, with information flowing from the State of Iowa Development Commission and the utility and rail companies to local industrial development agencies. Historically, the agencies in the cities of the region have been extremely active and possibly overly competitive in efforts to attract industry.

Insofar as federal assistance is concerned, the region appears to be receiving its share of grants, particularly from the Department of Housing and Urban Development. This is in large part due to active municipal planning agencies operating in the community development area. The region does not have a large proportion of federal contracts when compared to the state. Only two contracts out of 274 state contracts were awarded in the region, and these amounted to less than $200,000 in total value.

EDUCATION IN SOUTHEAST IOWA

The average Southeast Iowa employee is well-educated and all local employers agreed that the quality of work they perform is high.

Primary and Secondary Schools

Iowa's educational system is among the best in the country. The state ranks first in literacy, with less than one percent who cannot read, and second in the number of students who finish high school; 90.4 percent of entering students receive high school diplomas.

Salaries of Iowa teachers are close to the national average. In 1974, the average Iowa teacher was paid $9,854. The average expenditure per student was $1,059, sixteenth in the nation. State expenditures for vocational programs were sixth in the nation.[1] Class sizes are among the smallest in the country. Pupil-to-teacher ratios average 21.4 nationally while Iowa averaged 21.2 in 1974. All Southeast Iowa school districts have lower ratios (see Appendix Table 8-1). The major cities of the Southeast Iowa Region have a combined school bond indebtedness of $4,673,000 for an average per capita school bonded indebtedness of $194.25 (see Appendix Table 8-2).

As a result of Iowa's educational standards, the average highest grade completed in Southeast Iowa is 12.2, which ranks among the highest in the United States. Almost 40 percent of the population over 25 has completed high school, 20 percent has had some college, and eight percent have college or postgraduate degrees. Only three percent has less than five years of education.

Iowa has led the nation for many years in functional literacy rating. Iowa has 452 public school districts, 282 parochial and private schools, and 30 private colleges and universities, 15 area vocational schools and area community colleges, and three state institutions of higher learning.

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[1]National Education Association, *Ranking in Schools*, 1973.

College and Universities

Iowa colleges and universities have been a continuous source of both management-level personnel and industrial scientists. In addition, many employees use the state's educational facilities to obtain other advanced degrees.

The University of Iowa at Iowa City has an enrollment of 20,387. The University Hospital is one of the nation's leading medical units.

Iowa Wesleyan College at Mt. Pleasant is the only private, coeducational four-year liberal arts college in the region. The 70-acre campus employs a staff of approximately 63 full and part time teachers and has a student body of about 760. Wesleyan's major fields are the social sciences, especially political science, government, education, business and commerce, and the biological sciences. Special educational programs offer degrees in medical technology and teaching the mentally handicapped. Dual degrees in engineering are offered in cooperation with the University of Iowa and in forestry with Duke University of North Carolina. Summer and interterm institutes offer courses abroad in Europe and East Asia. Full-time tuition is approximately $2,000 a year.

Southeastern Community College has a main campus in Burlington with an enrollment of 1,133 students. A second campus in Keokuk has 432 students. The community college program offers more than a two-year curriculum creditable towards a bachelor's degree and a variety of programs related to employment. Tuition is approximately $447 a year.

Career Education Programs

The community colleges in Southeast Iowa participate in the state career education plan, which is now in the process of implementation and further refinement. The career education plan has 32 categories of occupational programs with 123 individual programs. The Burlington and Keokuk schools have 26 programs including the following areas:

Arts and Sciences
Adult Basic Education
High School Completion
Continuing
Apprentice
Supplementary
General Merchandise Specialist
Medical Laboratory Assisting
Mechanical Technology Production
Auto Body Repair
Auto Mechanics
Machine Shop
Career Counseling
Remediation
Nursing Associate Degree
Practical Vocational Nurse
Medical Assistant
General Office Clerks
Secretaries
Electronic Technology
Mechanical Technology, Machine and Tool Design
Farm Vets
Nursing Assistance Aide
Carpentry
Welding and Cutting
Cook/Chef

State Career Education

It is anticipated that the short- and long-term labor requirements in the Southeast Iowa Region will be more easily met as the state career education program becomes effective.

State plans currently call for a sequence of practical-oriented career development experiences to complement their college coursework and help to prepare for future career opportunities.

Career educational programs are designed to orient individuals to the world of work, to provide exploratory opportunities, and to prepare individuals for gainful employment in existing as well as new or emerging occupations at the semi-skilled, skilled, technician, and subprofessional levels. Also included are programs, services, and activities designed to prepare individuals for enrollment in advanced technical programs and to upgrade individual skills of employed persons.

The State Plan for Career Education provides support for guidance services which are designed to (1) identify and encourage the enrollment of individuals needing career education, (2) provide individuals with information necessary for making meaningful and informed occupational choices, (3) provide ongoing services to assist them while pursuing a program of career education, (4) aid them in vocational placement, and (5) conduct follow-up activities to determine the effectiveness of the instruction and the guidance program.

The programs, services, and activities will serve the following population groups:

1. Students in elementary and secondary schools.
2. Persons who have completed or left high school and are available for study in preparation for entering the labor market.
3. Persons who have already entered the labor market and who need training to achieve stability or continued advancement in employment.
4. Disadvantaged persons.
5. Handicapped persons.

The entire program is intended to be responsive to the manpower needs of the state and the region. Administrators are to be members of local manpower planning boards so that they will be sensitive to the needs of local employers and assure that such needs will be addressed in school program development.

Appendix Table 8-3 illustrates such planning by identifying projected educational/training needs and a series of state programs suggested to help meet the need.

During the 1973-1974 academic year, Southeastern Community College cooperated with various high school districts in the region to offer career education programs of either exploration or preparation. Appendix Table 8-4 lists some of these programs.

At the elementary-secondary level, the Keokuk Community School District completed a three-year planning and implementation program during the 1973-1974 year for development of a coordinated K-12 thrust in vocational exploration, development, and job placement. Other communities within the region are initiating similar efforts.

The allocation of funds to local districts is weighted by the district's manpower needs and planned response to those needs, by career needs of the local population, the district's relative ability to pay, and local special costs. During the 1973-1974 year, the expenditures and student contact hours for the state and for Region XVI (which does not include the northern portion of Louisa County) amounted to 2.2 million contract hours (see Table 8-1).

HEALTH CARE

During the past two decades in Iowa, physicians who provide general care have migrated from rural to city practice. During this same period, physicians who provide specialty care have elected to practice in larger towns and cities. As a result, health services and medical care have been centralized in the cities that serve as regional trade centers, while the rural health care system has nearly collapsed (see Appendix Table 8-5). This is only one of the major problems affectig American health delivery.

Another major problem has been the absence of an organizational mechanism at the local level for establishing area-wide health policies and programs that are designed to meet the total needs of the people of the community. In an attempt to solve this problem, area-wide comprehensive health planning agencies were created to provide a framework for insuring community-wide involvement in health planning.

The following two sections give some background on the planning structure and the design for distribution of services in Southeast Iowa region.

Table 8-1
EDUCATIONAL EXPENDITURES OF PUBLIC SCHOOLS, 1973-1974

	Total Contact Hours	Total Expenditures
Region XVI	$ 1,056,487	$ 2,269,474
Iowa	$23,319,429	$45,164,537

The Comprehensive Health Planning Structure

In 1966, Congress enacted the Comprehensive Health Planning Act (Public Law 89-749) authorizing the governor of each state to establish a health planning structure, with a state office coordinating a number of "area-wide" agencies. These comprehensive health planning structures now exist in every state. They are directed by voluntary councils of private citizens (the State Comprehensive Health Planning Advisory Council). The area-wide comprehensive planning agencies are directed by similar advisory councils.

The mission of the state and area-wide comprehensive health planning agencies is to identify the health services needed by the people, encourage the development and rational geographic distribution of services, eliminate duplication of effort, reduce the cost of health services, and integrate the various elements of the health services field into an organized, interrelated system. Thus, comprehensive health planning in Iowa and throughout the country is designed as a continuous process that encourages both providers and consumers of health services to reach agreement on how to develop an effective comprehensive health system. The Comprehensive Health Planning Advisory Council provides the only forum for citizens to participate in rational local health decision-making.

The membership of each CHP council, by federal mandate, must have a majority of *consumers* of health services. These consumer members are to work in cooperation with council members who are *providers* of health services in order to determine the direction of the nation's health system. The process provides an opportunity for all voices to be heard. If the process is conducted effectively and intelligently, it should be capable of creating a health system that is responsive to the needs of all citizens.

Responsibilities of Area-wide and State CHP Agencies

Comprehensive health planning in the United States is organized on area-wide and state levels. This organizational structure localizes health planning and decision-making by providing a process for determining local needs, priorities, and goals. This type of organization provides for full participation of public, private, and voluntary groups as well as individual consumers, providers, and government officials.

The area-wide planning unit represents groups of counties within a state, and is one of the key units in the comprehensive health planning process. There are now 14 incorporated area-wide organizations in Iowa, representing an average of six counties each. These area-wide organizations were created to coordinate all health planning for the counties in their area. The four counties of Region XVI, Des Moines, Henry, Lee, and Louisa, comprise Area 16 of the Iowa Comprehensive Health Planning Agency. Area 16 is at present developing such an organization that as yet has not been approved or funded by the federal government.

Directed by a consumer/provider advisory council (51 percent consumers), the area-wide organization is charged with developing a comprehensive health plan for its area. It should determine the health needs of the citizens of its counties, set goals for health programs, designate health priorities, develop objectives, make recommendations for action to be taken within the area, and coordinate all health programs in the area to assure *comprehensive* care to avoid wasteful duplication of services.

Area-wide CHP agencies also have legislative and administrative responsibilities for review of health facilities projects within their region. The U.S. Social Security Amendments of 1972 (Public Law 92-603) call for CHP review of all health facilities proposals involving (1) capital expenditure for plan and equipment over $100,000, (2) a change in bed capacity, and (3) a substantial change in service. Area-wide CHP agencies are also charged with reviewing regional medical program applications, Hill-Burton Part I applications, 314(e) projects, and various other programs.

These reviews are intended to assure that all federally-funded health projects and activities are in accord with the principles, goals, and priorities established by state and area-wide CHP councils. Proper review and comment should result in improved health care at less cost.

Distribution of Services

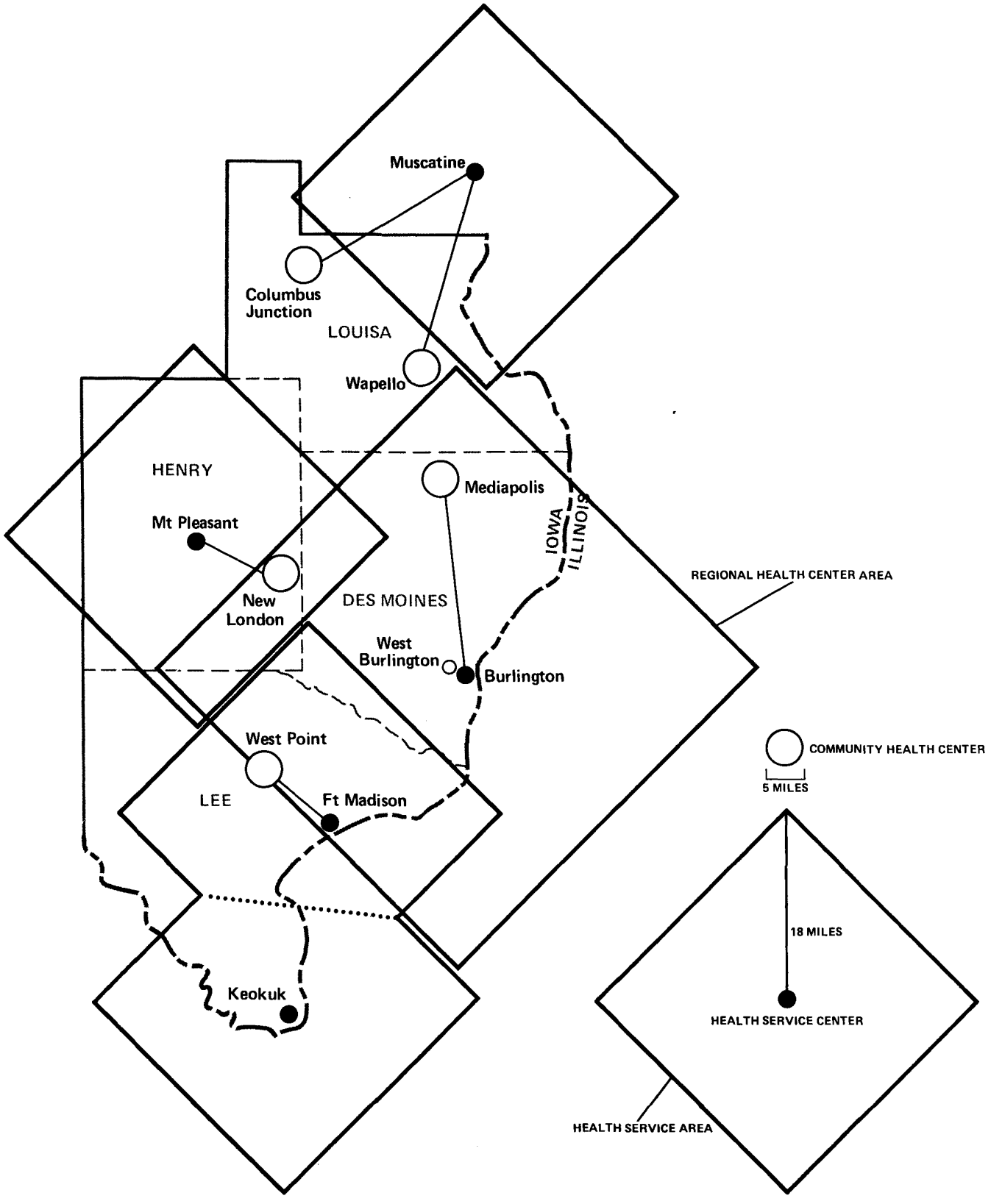
In the past, the most common provider of *medical* services has been the individual as opposed to hospital services which are provided by a group. However, young medical professionals entering practice, now and in the future, are unlikely to set up practice alone. Instead, the preference is to work in small groups where services and overhead costs of operations can be more evenly distributed.

A three-tiered distribution of medical services has been suggested[2] which will have the organizational and operational characteristics required by young medical professionals and which will end the fragmentation of health services.

Class I: Area Health Care Center--Primary Care

The primary organizational unit for providing medical care and health services will be the *area health care center*. In order to maintain maximum accessibility to all Iowans, it was determined that the optimal health service unit would consist of a 36 square-mile area in which primary medical care would be available within 18 miles (or 25 minutes) of all residents in that area. (Figure 8-1 shows health service distribution areas in Southeast Iowa.) The towns selected were of sufficient size and viability to function as health centers and, in this way, coincided with

[2]Health and Manpower Committee of Iowa Comprehensive Health Planning Council, *Proposed Organizational Structure for Providing Health Services and Medical Care in the State of Iowa*, August, 1972.



SOUTHEAST IOWA HEALTH DISTRIBUTION AREAS

Figure 8-1

existing economic-retail patterns. Muscatine, Mt. Pleasant, Fort Madison, and Keokuk were selected as proper locations for health service centers in Area 16.

An area health center will provide primary medical care and health services that will include:

1. Preventive services, case-finding services, and diagnosis and treatment for usual and uncomplicated illness and disease.

2. Minor surgery and medical care for uncomplicated problems.

3. Supervision of home care health services.

4. In large area health centers, services for surgical and medical problems not requiring specialized personnel and equipment.

5. Primary dental services.

Each area health center will provide continuous care to area residents. Because the physicians will be acquainted with the patients, many of the usual medical problems (e.g., virus infections, measles, etc.) will be handled with dispatch and the number of patients seen in such centers will be greater than in regional health centers. This type of unit, properly designed and staffed, can provide high-quality, personalized care. Thus, the area health center provides a single entrance into the health care system for the people it serves.

Class I: Community Health Center--Primary Care

In developing the organizational structure, it was recognized that there are a number of Iowa communities whose population is not large enough to support an area health center, but too large to request them to travel vast distances in order to receive all of their primary health care. To meet this need, the concept of a *community health center* was included in the organizational structure. The center would function as a satellite of an adjoining area health center. Such community health centers would be staffed by nonmedical personnel. A physician from the health center would spend a day or more in a community health center each week. Columbus Junction, Wapello, Mediapolis, New London, and West Point are to have community health centers.

A community health center will provide the following services:

1. Preventive services, case-finding services, and diagnosis and treatment for usual and uncomplicated illness and disease.

2. Supervision of home care health services.

3. Referral into the comprehensive health care system if needed.

Class II: Regional Health Center--Secondary Care

Regional health centers are now in existence. The cities that provide secondary health and medical care for citizens of the state have developed as regional trade centers within the last 20 years. With few exceptions, all of the specialty physicians who practice in the state now practice in these regional centers (see Figure 8-1) and these towns have unusually good medical facilities. Burlington has been designated a regional center for Southeast Iowa.

A regional health center will provide primary and secondary medical care and health services for the population living in and around the central city. It will provide secondary medical and health care for the people living in the region it serves. This care will include:

1. Preventive services, case-finding services, and diagnosis and treatment for usual and uncomplicated illness and disease.

2. Minor surgery and medical care for uncomplicated problems.

3. Supervision of home care health services.

4. Referral into the comprehensive health care system as needed. (In large area health centers, services for surgical and medical problems not requiring specialized personnel and equipment.)

5. Primary, restorative, and specialized dental services.

6. Nursing services in home care programs and in community health programs.

Class III: University Medical and Teaching Center--Tertiary Care

Tertiary care centers now exist and provide services for the State of Iowa. In general, the state-supported University of Iowa Medical Center provides the major portion of tertiary care.

Experience shows that accessibility is not an important consideration in planning tertiary care. The need is for specialized staff as well as the laboratories and equipment required to provide special services. Tertiary care for Southeast Iowa region will be available in Iowa City at the University of Iowa. The services provided in this center would include:

1. Specialized medical, diagnostic, and therapeutic services for unusual and complicated cases that require specialized care.

2. Specialized surgical care for unusual and complicated cases (neurosurgery, organ transplants, etc., that require specialized care).

3. Emergency care.

4. Specialized surgical dental services.

5. An arrangement to refer patients into the comprehensive health care system as needed.

INDUSTRIAL DEVELOPMENT CORPORATIONS

The Iowa Development Commission, located in Des Moines, attempts to serve the entire state and directly assists local development agencies. IDC develops 58-page fact-files for each area which can be sent to industrial prospects. A four-page brochure is also prepared with summary information from the larger file. IDC staff will visit local groups to instruct members on the formation of local development agencies; the techniques of promoting businesses, development, and purchase of industrial sites; and the securing of revenue bonds. IDC will refer prospects to local groups and provide whatever supporting services they may require.

The four counties of Southeast Iowa have 19 development corporations or economic development organizations concerned with promoting existing or future business and industries. (See Appendix Table 8-6.) The size and capability of these organizations varies widely, but all have a similar pattern of activities. They develop advertising, compete and disseminate data on their locale, lobby to attract interest in their area, and buy or arrange for land to be purchased and developed for industrial use. They also provide technical assistance, such as soil and water tests to incoming business, facilitate relations between the incoming business and the local government, and generally aid incoming businessmen in settling in the area.

Table 8-2 contains a selected list of current activities of the primary organizations. The source and amount of funds for these groups change from time to time, but, at present, they have combined estimated budgets of $93,000. Staff sizes vary for each organization. Some have paid directors or paid Chamber of Commerce directors who also manage the local IDC. Others are composed of city council committee members and volunteers.

In recent years, a total of 752 acres have been purchased or are under option for industrial parks, developed and undeveloped.

Industrial Bonds

With the help of local corporations, industrial revenue bonds[3] are sold to facilitate incoming business. Fort Madison, for example, has $80,000,000 (see Table 8-3) in outstanding sold and unsold issues, which has brought in industries like First Miss and Fruehauf.

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[3]Source for bond information: Carleton D. Beh, Co., Financial Consultants, Des Moines, Iowa.

Table 8-2
PRIMARY DEVELOPMENT ORGANIZATIONS

	Geographic Area	Budget	Undeveloped Industrial Parks	Industrial Bonds
1. Burlington Area Development Corporation	Des Moines County	$ 52,000 Budget-operating	Burlington Park--173 Acres	
2. Henry County Development Corporation	Henry County	-----	Mount Pleasant--160 Acres	
3. Mount Pleasant Chamber of Commerce	Henry County Mount Pleasant Trade Area	$ 21,000 Budget-operating		
4. Keokuk Industrial Development Corporation	City of Keokuk Jackson Township	$300,000 Fund Being Solicited Locally $ 50,000 Budget-operating $250,000 Land Acquisition Budget	8 Acres--Tile Company 105 Acres--Under Option 116 Acres--Under Consideration	
Economic Development Commission for the City of Keokuk	City of Keokuk (Cooperates with Keokuk IDC As of January, 1974)	Staffed by Three-city Councilmen No Budget		
5. Fort Madison Industrial Development Corporation	Fort Madison Area	$ 20,000 Budget-operating Variable Land Acquisition Fund	33 Acres--Armour Dial 70 Acres--Fruehauf 120 Acres--On Santa Fe Line, Undeveloped	$60,000,000 First Miss $12,000,000 Fruehauf $ 8,000,000 Pollution Control Bond
6. Wapello Development Corporation	Wapello Area	No Paid Staff 15-Man Board	40 Acres Northwest of City 80 Acres on Option, Unserviced 20 Acres (Completed)	

Table 8-3
SOUTHEAST IOWA REGION INDUSTRIAL AND UTILITY BONDS, 1963-1973

City	Industry or Utility	Bond Amount
Fort Madison	Sinclair Petrochemicals	$60,000,000
Fort Madison	Fruehauf Corporation	5,000,000
Burlington	ESB Corporation	4,500,000
Burlington	Litton Business Systems	3,100,000
Burlington	Champion Products, Inc.	650,000
Mt. Pleasant	Vega Industries	585,000
Keokuk	Borg-Warner Corporation	3,000,000
	Total:	$76,835,000

Source: Iowa Development Commission.

Federal bonds are regulated by the Internal Revenue Service, which has changed the procedures for bond issuance since the Fort Madison issue, and new regulations are under consideration in Congress. Formerly, bonds were approved by public referendum and issued in unlimited amounts. At present, IRS has restricted bonding to $5,000,000 for industrial expansion, with unlimited bonding for pollution control; however, only city council approval is required. Eligible uses for industrial expansion can include land, buildings, improvements, and equipment for the purposes of manufacturing, processing, assembling, warehousing, distributing, or selling products of agriculture, mining, or industry. In May, 1974, the Iowa General Assembly by expanding the definition of "project" included within the manufacturing, processing, and pollution control provisions, the authority for warehousing referred to above and also authorized voluntary nonprofit hospital, clinic, or health care facilities as well as barge facilities and riverfront improvements.

The bill expected to be cleared from committee by December, 1974, will allow $10,000,000 unlimited bonding, free of restraints on eligible uses.

Bonding procedures are relatively simple. The usual steps are as follows:

1. The selection of the community and the development of the project budget.

2. The selection of an underwriter and bond approving counsel.

3. The adoption of a memorandum of agreement on the part of the municipality and lessee or user corporation. This is required before construction commences under recent changes to the regulations of Section 103 IRS with respect to pollution control financing and its use in non-pollution control financing puts to rest questions of "public purpose" in the inducement of the company to locate the project and assures the issuance of the bonds and their exemption from federal income taxes.

4. Negotiation of all terms and conditions of the basic documents (lease, indenture of trust, sale agreement, loan agreement); such negotiations to be carried on by the underwriter and the company and documented by the bond approving attorney.

5. A public hearing held by the municipality on the final documents.

6. The sale of bonds and the appointment of a trustee.

7. The execution of all documents, delivery of executed bonds to the underwriter, payment for the bonds, and payment of all fees at the final closing.

Bonds pay interest according to the current market as established by the lessee's or user's credit and as developed by the underwriter, usually something less than the average market rate, with the absence of capital gains tax on the interest.

The lessee or user company pays all the costs of an industrial revenue bond issue. The debt is backed by the full parent corporation, not just the local branch. The city has no obligation. The bonds are "limited" obligations of the municipality, are payable solely from lease rentals or the provisions of a sale contract or a loan agreement, and have no effect on the taxing power or debt limits of the municipality. In the instance of default by the lessee, or contracting party, the city issuing the bonds usually covenants to use its best efforts to secure a new tenant.

A tax equivalent will be paid out of revenue received from the project to the State of Iowa, city, town, school district, and any political subdivisions authorized to levy taxes. In other words, the land, building, and equipment will be valued as any other property and taxes paid in the same manner based upon the current millage rate. The Iowa statute also provides that special assessments against benefited property may also be levied against the project.

No property tax incentives have been granted to incoming industries in Sountheast Iowa region and the tax rates on bonded facilities are standard rates. Recently, the state government passed pollution control tax exemption legislation to assist Iowa industry in meeting NEPA and state environmental regulations.

FEDERAL FUNDS RECEIVED IN SOUTHEAST IOWA REGION

All federal monies spent on programs in Southeast Iowa region are listed in the *Report on Federal Funds Received in Iowa, Fiscal Year 1973*, published by the office for planning and programming. (See Appendix Table 8-7.)

Appendix Table 8-8 lists approved projects by counties and the amount of federal grant and matching funds. Federal grants for the region amounted to $768,291 for projects such as school assistance, civil defense, parks, and waste disposal facilities. Appendix Table 8-9 shows the grants made to federal programs which are designed to provide services to individuals through private, nonprofit organizations or associations of local governments which operate on a multi-county basis. A few such organizations render service to residents of counties in adjacent states. This occurs generally in the larger metropolitan border areas and the action is taken for efficiency, economy, and mutual interest by voluntary agreements of the local officials and citizens.

The Southeast Iowa Community Action Organization is a multi-county body with a central office in Burlington. It received a total of $709,681 in fiscal year 1973 to provide for programs in community and family planning, Neighborhood Youth Corps, work-training and employment activities, and a preschool program.

Appendix Table 8-10 lists the cash amounts received under general revenue sharing during fiscal year 1973 for both county and city. The State and Local Fiscal Assistance Act of 1972 placed several restrictions on the manner in which local governments could spend General Revenue Sharing money. The funds cannot be used to provide the matching money required by federal grant-in-aid programs. The funds must be spent on what the statute designates as "priority expenditures." These are:

1. Ordinary maintenance and operating expenses for:

    a. Public safety (including law enforcement, fire protection, and building code enforcement).

    b. Environmental protection (including sewage disposal, sanitation, and pollution abatement).

    c. Public transportation (including transit systems and streets and roads).

    d. Health.

    e. Recreation.

    f. Libraries.

g. Social services for the poor and aged.

h. Financial administration.

2. Ordinary and necessary capital expenditures authorized by law.

Regardless of these limitations, the counties and cities are not really severely limited, as the revenue sharing money can be used to fund most important local government programs. The only important restriction is the omission of education from the permissible uses. In Iowa, this is not a great hindrance since education is funded from other than county or city budgets and the restriction does not apply to the revenue sharing funds received by the state government. One very important local government responsibility which has never received federal assistance before is fire protection, which is included under the priority expenditure for public safety.

Southeast Iowa is served by all major federal programs listed in Appendix Table 8-7. The data was compiled by the United States Office of Economic Opportunity and published in *Fiscal Year 1973, Federal Outlays in Iowa.* The report includes not only grants-in-aid to counties and cities, but also the payments of pensions, loans, federal salaries, subsidies, and other expenses attributable to those persons residing in the counties.

Many of the items are followed by a reference number. The amount reported for the county in these instances could not be determined from reporting sources. Thus, the sums were determined by a system of allocation and proration based on various forms of statistical data and are estimated. The federal funds entering the region totaled $145,430,464 in 1973.

Federal Contracts Awarded to Iowa Businesses

During fiscal year 1973, business enterprises in Iowa were awarded 274 contracts for providing goods and services to the federal government. Ten contracts are not for maximum sums of money but call for an "indefinite quantity." These are standing orders for a product to be purchased on call at a specified price and quantity over a limited period of time. The total value of the contracts to businesses containing specific dollar figures was $144,268,156. In addition, three agencies of state government received contracts with a total value of $1,603,403 for performing services for the federal government. The total value of contract awards in Iowa during fiscal year 1973 ($135,898,559) exceeded the fiscal year 1972 figure of $70,695,714 by $75,202,845.

Within Southeast Iowa region, two contracts were awarded in the City of Burlington by the Department of the Army. These were limited amount contracts of $45,719 for special formulation points from Diamond-Vogel Point Company, and $152,050 for a decontamination plant from Carl A. Nelson and Company.

Housing and Urban Development

The Federal Housing Authority's insuring office of HUD is located at 210 Walnut, Room 259, Federal Building, Des Moines, Iowa 50309. The telephone number is 515-284-5030; Nate Rubin is director.

Appendix Table 8-11 lists low rent public housing and FHA subsidized multi-family housing projects in the four counties. The region has a combined total of 528 units, 60 multi-family subsidized units and 201 elderly units in Burlington, 80 elderly and 25 non-elderly units in Fort Madison, and 162 elderly units in Keokuk. Both Burlington and Keokuk have participated in federally sponsored urban renewal.

PART III
FORECASTS AND GOALS

9.
AN ECONOMIC FORECAST FOR SOUTHEAST IOWA

During the 1960s, the economy of Southeast Iowa continued on a pattern of diversification from a primary manufacturing/agricultural orientation to one embodying the slow expansion of the retail and wholesale trade, finance, and service sectors. While the region continued to export goods throughout the United States, the national trend toward a more service-oriented economy during that decade created additional employment and earnings within the region.

Today, the national economic picture is quite the reverse. There is a growing possibility that the country is facing the most severe economic recession since World War II. Double-digit inflation has combined with higher unemployment, to produce lower per capita personal incomes and a decline in the gross national product. The outcome of these negative influences and their prolonged impacts on industry, consumers, and government are matters of continuing debate among economists, industrial, and government leaders.

Recently, in light of some recessionary job cutbacks and alterations in future corporate planning, it has become necessary to examine the economic future of the region in order to resolve some major issues. Will the Southeast Iowa region economy gain more export manufacturers or retailers? Will the region lose its relative economic position? What type of strategy should be developed to capitalize upon the region's strong points in order to promote continued, sound economic activity? All of these questions become pertinent issues for public discussion based upon an assessment of the region's economic future. An economic forecast should aid in this assessment.

Findings Based Upon the Economic Forecast

1. In general, total employment in the region expanded at a gradual rather than a rapid rate during the 1960 to 1970 period, and total employment is projected to decrease in the future (1970 to 1985) from its 1970 figure.

2. While approximately 900 export jobs were added in the region between 1962 and 1972, the region is projected to gain 869 export related jobs by 1985.

3. The basic residentiary[1] division ratios have not kept pace with those occurring in other regions and nationally. The constancy of the gross residentiary division ratio indicates that there exists potential for greater substitution of goods and services currently purchased from outside the region. However, the residentiary ratio is projected to increase only slightly.

4. Continued growth of employment into the future will be restricted due to a limited labor supply caused by a declining regional population and the probable inability of the region to sustain increased volumes of commuting workers.

5. Continuation of the constricting 1970 economic trends into the 1980s will produce a need for development planning designed to increase the level of economic activity, combined with efforts to strengthen existing industries.

6. It is necessary to survey the individual industries within the region to determine their economic position (e.g., emerging, growing, or mature) vis-a-vis similar industries in comparable Standard Industrial Classification (SIC) categories.

Purpose of Part III

The purpose of this phase of the Southeast Iowa Economic Development Strategy Study was to prepare an economic forecast for the region to 1985, based upon historical and current trends experienced nationally, regionally, and locally within the various industries and complementing economic sectors.

A guiding principle in the preparation of this economic development plan has been the need to make it consistent with the ambitions of the region's industrial and commercial leaders. As a part of this study, business firms as well as the existing economic linkages, variables, opportunities, and constraints intrinsic to this area were inventoried and evaluated.

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[1] *Residentiary Division*--consists of firms producing goods or services that are sold locally to consumers or other businesses (i.e., retail trade, services, banks, and construction).

Export Division--consists of larger firms producing goods or services *not* consumed within the region.

Imports--consists of goods or services not produced within the region but required for local business operation and human existence (i.e., specialty foods, special legal services).

The data compiled in the background studies provided the basis for projecting the future of the economy and for developing strategies addressing major issues of regional concern.

Economic Develoment Defined

Economic development planning attempts to *conserve and strengthen the existing mix* of industries and commercial firms while developing a series of actions (or programs) that will *catalyze the future development potential* and, therefore, growth of the region. The goal is to raise the per capita personal income of residents, provide stabilized employment, and achieve a high level of labor participation. From 1929-1971, the annual rate of growth of per capita personal income for the region slightly outpaced the state and the national average. Now with inflation creating illusive gains, the actions that comprise an economic development strategy should address the long-term need for prolonged regional development and growth to average out these periods of national instability.

Rationale for Economic Forecasting

There are three major reasons for undertaking the preparation of an economic forecast for the Southeast Iowa region:

1. To establish a perspective on the regional economy based upon existing trends and existing government policies.

2. To explore the implications of these trends and policies with respect to the current and future economic well-being of the region.

3. To evaluate the various recommended actions, programs, and strategies against the outcome of current trends and government delivery capacities.

The economic forecast presented in this report established a probable pattern of employment within the various economic sectors based upon existing trends and policies. As such, the *forecast is a static display of what could happen in the region*, barring any massive alteration in natural resource availability (e.g., energy) or barring national economic climate changes (e.g., recession). From this forecast, an understanding can be obtained of the economic variables that must be managed in order to implement the actions articulated in the proposed economic development strategy.

This forecast combined with the various attitudinal surveys conducted during this study (e.g., goals determination survey and interviews with industrial, government, and civic leaders) provides a future economic posture that suggests possible trade-offs in public attitudes and policies. For example, public sentiment, as it presently exists, possibly represents a satisfactory level of economic well-being without the need for potential alterations in public policy or actions. On the other hand, the economic forecast might not indicate enough future growth to sustain the expected long-term economic viability of the region. This interpretation of

forecast results is a value judgment. A forecast should be considered *a tool* to aid in the proper design of realistic economic development actions based upon problems identified therein.

Finally, an economic forecast provides a bench mark for comparing the impacts of alternative economic development strategies. While these alternatives will reflect the goals of the region at various levels of public and private sector responsiveness, there is a need to test the projected impact of these alternative strategies. The projected impact can be reviewed and serve as a basis for making decisions on the proper economic development approach to take within the region.

Limitations of Economic Forecasting

Economic forecasting in its purest form is a series of mathematical computations whose numerical values represent assumptions on current and projected economic events. Since it is a predictive device, it suffers from several limitations which restrict its usefulness as a definitive statement on future events. Economic forecasting is a tool to be used in evaluating alternative means and not an end in itself. The three major limitations on forecasting are:

1. Timeliness and costs of updating.

2. Inability to account for all the external but related economic variables.

3. Inability to model the magnitude of economic sector linkages.

The product of a forecast is based upon static inputs of a series of economic variables. Many of these variables are, in fact, dynamic and, therefore, must be continuously altered to reflect those specific occurrences. To constantly update the model and recompute the results is a task that requires substantial monetary outlays.

Many of the external variables (e.g., energy availability) defy projection due to their interrelationship with international and national political policies. The depth and breadth of a national recession involves such an unusual series of events, policies, and international pressures that no analyst can accurately comprehend and assess its meaning. For the purposes of this forecast, a relatively short and minimal recessionary period has been assumed.

In addition, many of the economic linkages that traditionally have been thought to exist are now being redefined. Economic modeling can only reconstruct a broad series of major linkages and must bypass many of the minor intersectorial economic interrelationships.

Forecast Methodology and Major Assumptions

The economic forecast of the region to 1985 was based upon employment data compiled by the Bureau of Census (e.g., Survey of Current Business

and Census of Population) for major employment trends experienced at the national, state, and local level. Composite industrial employment tabulations of the Census were divided into two major groups reflecting export and residentiary-oriented business operations.

The business operations of the Southeast Iowa region basically serve two major markets. The export division (e.g., manufacturing and agriculture) primarily produces goods or services not consumed within the region, but sold to consumers outside the region. The residentiary division (e.g., retail trade, banks, or construction) produces goods or services that are sold locally to consumers or business operations. One of the major reasons for the higher per capita income experienced within the region during the 1960s can be traced to manufacturing exports. Through the location of major export manufacturers, the region has been able to maximize an economic position of favorable balances of trade for products sold outside the region to goods or services required within the four-county area. Generally, this means that more money comes into the region from exports, than is consumed for goods and services.

Export employment was projected in a two-stage procedure seeking to identify:

1. The potential of the multistate area (e.g., Minnesota, Iowa, Missouri, Wisconsin, and Illinois) to capture a proportional share of the national industrial employment to 1985.

2. The potential of the Southeast Iowa region to capture a proportional share of multistate employment to 1985.

Residentiary employment projections were seen as complementing the export division of the regional economy. Residentiary projections were estimated by a set of ratios which related the residentiary employment of each industry to the total employment of the area.

Specific identification of those firms engaged in export production within the region was accomplished through analysis of employment data on industrial firms supplied by the Iowa Employment Securities Commission and a survey of larger industrial firms within the region. This survey of firms provided information on product line, employment levels by size, market characteristics, and barriers to future expansion (see Appendix B).

A constricting factor for future employment will be the inability of the region to hold and capture additional households or population. The sustained growth of the export division is directly impacted by the expansion of household formations or the capture rate of workers from outside the region. Complementing the growth of the export division is the expansion of the residentiary division which has a tendency to fluctuate with the increases or decreases in export employment. For this forecast, the projected level of export-related jobs was seen as the basic determinant of the total employment and population level expected for the Southeast Iowa region.

Due to their technical nature, many of the assumptions underlying this forecast have not been included in this brief review of methodology and major assumptions. Appendix C discusses the total series of assumptions used in both export and residentiary projections.

Historical Overview of Export Employment

In the Southeast Iowa region, the largest number of export jobs is in the manufacturing sector. Almost all manufacturing employment, except for printing and publishing, is export in nature. The second largest export category is agriculture, particularly farming. About 25 percent of the employment in transportation, communications, and utilities may represent export jobs in this region. Important export activity also occurs in wholesale trade and in services. Table 9-1 shows employment in the region for 1960 and 1970 for major sectors and estimated export jobs in each sector for 1970.

All of the reported agricultural employment is shown as export since local produce sales can be represented more than adequately by farmers who also hold jobs and are reported in other sectors. The estimate of a total

Table 9-1
EXPORT EMPLOYMENT BY SECTORS, 1960-1970

Sector	Employment				Percent
	Total 1960	Total 1970	Change	Export 1970	Export-Related
Agriculture, Forestry, Fisheries	5,666	3,504	-2,162	3,504	100%
Mining	112	146	34	40	27
Construction	1,990	2,054	64	300	14
Manufacturing	11,461	14,977	3,516	14,000	93
Transportation, Communications, Utilities	3,259	3,018	-214	750	25
Wholesale Trade	1,331	1,581	250	300	19
Retail Trade	6,882	7,694	812	600	8
Finance, Insurance Real Estate	1 014	1,203	189	100	8
Services	10,451	12,424	1,973	600	5
Unallocated(1)	1,652	736	-916	306	41
Total:	43,818	47,337	3,519	20,500	43%

(1)Unallocated in 1960 represents "industry not reported"; in 1970, it represents 14- and 15-year old workers not identified by industry.

Source: U.S. Census of Population, 1970.

of 20,500 export workers for 1970 means that 26,837 workers are estimated to have held residentiary jobs. The ratio of residentiary to export jobs was, therefore, 1.31 to 1.00. This ratio tends to become larger over time and by 1985, it is likely to be above 1.50 to 1.00 in keeping with national trends.

EXPORT DIVISION EMPLOYMENT FORECAST

A forecast of export division employment to 1985 was made for those industries identified as heavily export-oriented and for which accurate employment information was available for both the early 1960s and for the 1972-1974 period. The major source of information for these two time periods was the *County Business Patterns* published by the Bureau of Census.

The forecast involved classification of industries into groups based on the growth rate of the industry in the region compared to its growth rate in the Iowa-Illinois-Missouri multistate area and the growth rate in this area compared to growth of this industry in the nation. A four-way classification of existing industries in the region was made. The types of industries identified are indicated in Table 9-2.

The growth trends represent the experience of each industry in the region, multistate area, and nation during 1962-1972. It is assumed that each industry will experience this type of growth during the 1975-1985 period. For any two industries for which the national growth is the same, the Type 1 industry is likely to have the faster growth in the region, and the Type 4 industry is likely to have the slower growth. It is possible, however, that a declining share of the area employment in a region could be overcome by a rapidly rising share of the nation's employment in the multistate area in a Type 2 industry. A Type 3 industry could be offsetting a slow area growth rate with a rapid regional growth rate. In the projections, each combination is different because of variations in rates at which the employment shares are shifting between the region and the multistate area and between the multistate area and the nation. The national growth in each industry also tends to differ with each particular industry.

In a non-metropolitan region, a narrowly defined industry is likely to be represented by a limited number of firms and often by only one large firm. The projection of future growth for one firm in a product class can have a low probability of realization. The intentions of the management and characteristics of operation make each individual industry unique and open to wide variations in future employment. The low confidence level of an individual projection does not, however, destroy its usefulness in a regional economic forecast. The sum of a number of individual corporate projections can have a higher confidence level (e.g., accuracy level) because of offsetting errors and averaging of differing corporate plans. The individual employment projections shown in Table 9-3 should be treated as indicators of potential shifts in operating conditions for each industry. *The numbers do not incorporate any information on the intentions of managements of specific firms within the region.*

Table 9-2
EXPORT INDUSTRY CLASSIFICATION--MANUFACTURING AND OTHER SECTORS

Type	Growth Characteristics	Product Description
No. 1	Growth in the region faster than growth in the area, and growth in the area faster than in the nation.	Miscellaneous wood products; other lumber and wood products; office furniture; soap, cleaners, and toilet goods; paint and allied chemicals; fabricated rubber products; motor vehicles and equipment.
No. 2	Growth in the region slower than growth in the area, and growth in the area faster than growth in the nation.	Bakery products; blast furnace; basic steel products; iron and steel foundaries; other nonelectrical machinery; miscellanous electrical equipment and supplies.
No.3	Growth in the region faster than growth in the area, and growth in the area slower than growth in the nation.	Meat products; grain mill products; household products; paperboard mills; paperboard containers; industrial chemicals; agricultural chemicals; other primary metal products; cutlery, hand tools, hardware; fabricated structural metal products; engines and turbines; farm machinery; electrical test and distributing equipment; miscellaneous wholesalers; business services, mailing, etc.
No.4	Growth in the region slower than growth in the area, and growth in the area slower than growth in the nation.	Other food and kindred products; converted paper products; other chemical and allied products; miscellaneous plastics products; concrete, gypsum, and plaster products; other fabricated metal products; construction and related machinery; electronic components and accessories; other electrical equipment and supplies; other manufacturing, all types trucking, local and long-distance; colleges and universities.

Table 9-3
EMPLOYMENT OF INDUSTRIES WITH HEAVY EXPORT ORIENTATION, WITH GROWTH TYPE IDENTIFICATION AND PROJECTIONS TO 1985, SOUTHEAST IOWA REGION

Type	Growth Characteristics	Product Description	Employment Actual 1962	Actual 1972-1975	Projected 1985	Change	Percent
1	Growth in the region faster than growth in the area, and growth in the area faster than growth in the nation.	Miscellaneous Wood Products	0	150	311	161	107%
		Other Lumber and Wood Products	0	11	16	5	45
		Office Furniture	140	285	352	67	23
		Soap, Cleaners, and Toilet Goods	0	303	712	409	134
		Paints and Allied Chemicals	150	253	371	118	46
		Fabricated Rubber Products	0	1,000	1,693	693	69
		Motor Vehicles and Equipment	0	621	1,248	627	100
2	Growth in the region slower than growth in the area, and growth in the area faster than growth in the nation.	Bakery Products	426	230	123	107	-52
		Blast Furnace, Basic Steel Products	480	300	177	123	-41
		Iron and Steel Foundaries	330	400	443	43	10
		Other Nonelectrical Machinery	171	158	107	51	-32
		Miscellaneous Electrical Equipment and Supplies	150	150	148	2	-1
3	Growth in the region faster than growth in the area, and growth in the area slower than growth in the nation.	Meat Products	0	235	192	43	-18
		Grain Mill Products	664	759	824	65	8
		Household Products	419	402	310	92	-22
		Paperboard Mills	0	150	227	77	51
		Paperboard Containers	180	188	201	13	7
		Industrial Chemical	180	178	190	12	7
		Agricultural Chemicals	166	393	381	12	-3
		Other Primary Metal Products	40	115	140	25	21
		Cutlery, Hand Tools, Hardware	0	144	125	19	-13
		Fabricated Structural Metal Products	104	881	1,414	533	60
		Engines and Turbines	200	266	286	20	7
		Farm Machinery	0	95	74	21	-22
		Electrical Test and Distributing Equipment	0	971	948	23	-2
		Miscellaneous Wholesalers	307	601	751	150	24
		Business Services, Mailing, Etc.	160	250	218	32	-12

Table 9-3
EMPLOYMENT OF INDUSTRIES WITH HEAVY EXPORT ORIENTATION, WITH GROWTH TYPE IDENTIFICATION AND PROJECTIONS TO 1985, SOUTHEAST IOWA REGION (Continued)

Type	Growth Characteristics	Product Description	Employment Actual 1962	Actual 1972-1975	Projected 1985	Change	Percent
4	Growth in the region slower than growth in the area, and growth in the area slower than growth in the nation.	Other Food and Kindred Products	252	189	141	48	-25%
		Converted Paper Products	150	100	70	30	-30
		Other Chemical and Allied Products	133	24	5	19	-79
		Miscellaneous Plastic Products	900	0	0	0	0
		Concrete, Gypsum, and Plaster Products	148	148	146	2	-1
		Other Fabricated Metal Products	144	13	0	13	0
		Construction and Related Machinery	1,490	1,490	1,320	170	-11
		Electronic Components and Accessories	950	919	919	0	0
		Other Electrical Equipment and Supplies	1,030	0	0	0	0
		Other Manufacturing, All Types	3,918	4,033	4,000	33	-1
		Trucking, Local and Long-distance	477	541	538	3	-1
		Colleges and Universities	150	133	75	58	-44
		Heavy Export Orientation	14,009	17,079	19,196	2,117	+12
		Minus Agricultural Employment Losses	5,168	3,000	1,752	1,248	-41%
		Total Export Employment(1):	19,177	20,079	20,948	869	+04

(1) Total Export Employment is considered to be employment in industries with heavy export orientation and employment losses projected for agriculture.

The industries listed in Table 9-3 include over 80 percent of the export employment within the region. The projected 1985 employment is related to the comparative advantage of each industry as estimates of future industry growth in the nation, and to moderate growth-dampening effects of immediate recessionary pressures. The detail in this table is limited somewhat by the availability of information from *County Business Patterns* reports. The manufacturing sector includes projections of 35 three-digit and two-digit level industries.[2] About 4,000 jobs in manufacturing, however, are not identified sufficiently to indicate the variety of products represented. These are the jobs titled "other manufacturing, all types," as shown in Table 9-3. The army ordnance and atomic energy operations are included in this group, but very high employment levels in these operations had not been reached in 1962 and no longer existed by 1972. Due to the rapid short-term employment increase with this employer, a weighted average was applied which maintained a constant employment rate.

Some of the extreme employment changes between 1962 and 1972 may represent the addition or the loss of a major plant, or one or more pairs of changes could represent a reclassification of a firm or firms into a different SIC product line. The projected employment levels for 1985 are for industries that were present with employment in the 1972-1975 period. It is expected that some additional new industries will locate in the area in the next 10 years, but it is also likely that some existing firms will discontinue operations. These employment losses and gains are assumed to be approximately offsetting so that the total projected 1985 employment for existing industries with heavy export orientation will approximate 21,000 jobs (including agricultural production).

Approximately 50 percent of the 1972-1975 jobs listed in Table 9-3 are in industry Types 3 and 4. The multistate area's share of the nation's jobs in these industry types has been decreasing. Substantial growth in these industries in the region is not expected unless the national level of employment in a particular industry is expected to increase rapidly. An example of this is the industry of fabricated structural metal products. This industry is not growing as fast in the multistate area as in the nation, but national employment is projected to increase rapidly so the region can expect a smaller increase in employment than at the national industrial level.

Farming is not as dominant an industry in this region as it is in the other parts of the state. The rapid decline in farm employment, however, produces the largest projected loss in export employment in any sector or industry in the region (see Table 9-4). Some of this is a "paper" loss when farmers take second jobs and are reported in other sectors. When this happens, however, the other sectors are not adding workers to the region as much as the total employment numbers would indicate. In addition, the farmer who takes a second job is usually less inclined to expand his farming into new or larger operations.

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[2]Under Standard Industrial Classification System, two-digit firms are represented by major product grouping (e.g., agricultural products) while at the three-digit level, a more detailed breakdown of product is given for each two-digit code.

Table 9-4
AGRICULTURAL EMPLOYMENT FORECAST

Employment Type	Employment Actual 1962	Employment Actual 1972-1975	Projected 1985	Projected Change	Projected Percent
Farming	5,168	3,000	1,752	-1,248	41%

Source: Barton-Aschman Associates, Inc., 1975.

TOTAL EMPLOYMENT FORECASTS

Export employment estimates for 1985 are the first element in the estimation of total employment for the region for that year. The other element needed is a set of ratios which relate the *residentiary* employment of each industry to the total employment of the region. A set of ratios was computed from *Census of Population* information for each of the years 1960 and 1970. In each of the years, this set of ratios indicated that 57 percent of the employment of the region was residentiary. As noted earlier, this translates into a 1.33 ratio of residentiary to export employment. The unexpected result of these calculations was the constancy of this ratio from 1960 to 1970. This is contrary to the experience of other Iowa regions (e.g., Fort Dodge) where the ratio of residentiary to export employment increases over time or, in other words, the percentage of total employment that is residentiary has gone up.

A projection of the ratio of each residentiary employment level to total employment levels was made for 1985. However, for employment related to education, the trends were adjusted to indicate a slight decline. The proportion of the population that will be of school age is expected to be lower in 1985 over the entire age range from grade school through college. After the individual ratios were estimated, the sum of the 1985 ratios was slightly over 57 percent of total employment. In summary, residentiary employment in the region is not projected to increase as a percent of the total if past trends are continued.

Table 9-5 shows the employment by industry of workers who have lived and will live in the region in 1960, 1970, and 1985. The 1985 numbers are, for each industry, the sum of the separately estimated export employment and the residentiary employment data that was computed from the residentiary-to-total-employment ratios for 1985. Total labor force is projected to decline slightly by 1985 when compared to 1970.

Population Forecast for the Region

The ratio of population to employment has changed over time in the region. There were 2.67 persons for every worker living in the region in 1960. In 1970, the ratio was 2.51 persons per worker. By 1985, it is

expected to decline to about 2.4 persons per worker. The change between 1970 and 1985 will result from more jobs held by females, a continued decline in the ratio of young persons to working population, and a leveling off of the proportion of persons who are past retirement age.

The result of this decline in the ratio between 1970 and 1985 is that population is projected to decline even more than employment between these years. The population equivalent of a 44,839 resident work force in 1985 is 107,614. In 1970, the population was 118,774, and in 1960, it was 117,289 (see Table 9-6).

Table 9-5
REGIONAL LABOR FORCE PROJECTIONS BY INDUSTRY, 1985

Type of Industry	Employment 1960	1970	1985
Agriculture, Forestry, Fisheries	5,666	3,504	1,752
Mining	112	146	158
Construction	1,990	2,054	1,959
Manufacturing, Export-oriented(1)	10,836	14,594	14,972
Printing and Publishing	625	383	274
Railroads and Railway Express	1,374	983	904
Trucking Service and Warehousing	620	586	559
Other Transportation	242	334	359
Communications	460	370	269
Utilities and Sanitary Services	563	745	762
Wholesale Trade	1,331	1,581	1,695
Food Stores	1,134	1,281	1,255
Eating and Drinking Places	1,146	1,342	1,345
Other Retail Trade	4,602	5,071	4,843
Finance, Insurance, Real Estate	1,014	1,203	1,211
Business and Repair Services	917	1,165	1,152
Private Household Services	1,176	635	291
Other Personal Services	1,181	1,363	1,345
Entertainment and Recreation	324	280	202
Hospitals	1,402	1,547	1,502
Schools and Colleges--Government	1,714	2,371	2,018
Schools and Colleges--Private	493	823	817
Welfare, Religious, Nonprofit Organizations	562	601	560
Other Professional Services	1,127	1,966	2,466
Public Administration	1,555	1,673	1,631
Unallocated	1,652	736	538
Total:	43,818	47,337	44,839

(1)Manufacturing industries with export orientation are those listed in Table 9-2. Resident manufacturing workers for 1985 are estimated to be 85 percent of all manufacturing jobs in order to adjust for in-commuters.

Source: U.S. Census of Population for 1960 and 1970, Barton-Aschman Associates, Inc., 1975.

Table 9-6
REGIONAL POPULATION FORECASTS, 1960-1985

	1960	1970	1985
Resident Labor Force	43,928	47,320	44,839
Population Ratio	2.67	2.51	2.40
Estimated Population	117,289	118,774	107,614

10.
GOALS FOR THE REGION

During November and December, 1974, various opinion-setters and members of the Citizens Advisory Committee were surveyed to aid in the establishment of goals and objectives for regional development. The composition of the respondents was established by the local Regional Planning Commission staff and was limited to persons who had (a) been involved in preliminary meetings with the consulting team, or (b) who had reviewed draft reports prepared for this work. This is to say, the respondents were fairly well-informed on the region, the study, and the aspirations of its residents. Of the questionnaires circulated, approximately 30 were returned for tabulation and 25 were, in fact, tabulated. Five were discarded due to the failure of the respondents to follow instructions.

Through the process of research and interviews with local business leaders and citizens, various goals were identified and these formed the main body of the questionnaire. They are discussed below:

Improve Highway Access. Several highway projects could be developed to improve the movement of goods and people, especially employees. Probable improvements would include RT 61 in the eastern regional travel corridor to give better access from Keokuk to I-80, Route 534 from Mt. Pleasant to Burlington, and the rebuilding of the U.S. 534 bridge to Illinois. Reemphasis would be given to rebuilding U.S. 534 west of Mt. Pleasant.

Develop River Transport. The river currently carries large amounts of bulk materials and is intricately connected to agribusiness in the region. Improving this form of transport would begin with goods movement studies and lead to special facilities at bulk transfer points such as rail/barge or rail/truck/barge interchange points.

Upgrade Air Facilities. Commercial air service is an asset to cities on the west side of the Mississippi River. To meet future needs, improved and possibly relocated facilities should be developed. Particular attention would be focused on small jet aircraft facilities as well as the service areas of airports and airfields.

Improve Goods Movement. The overall vitality of the industrial and agricultural sector relies on low-cost goods movement. Improvements could be achieved by terminal transfer points or regulatory changes.

Reduce Out-migration of Youth. The region has been experiencing substantial out-migration of youth which is due, in part, to the type of employment opportunities available in the region. The remaining older age population causes shifts in human services and denies the region certain leadership and entrepreneurial benefits.

Improve Labor Skills. Improving labor skills is an important "software" activity and could result in increased job opportunities. The resultant effect could be lower unemployment, higher personal income and greater attractiveness in the region for industry.

Coordinate Industrial Commissions. Local development groups work independently and tend to compete for new industry. Coordinating their efforts would permit greater exposure of the region to industrial prospects and lower costs for the development groups.

Steady Base Employment Growth. Steady growth will permit absorption of employees from declining industries or defense facilities and will permit greater labor participation for primary and secondary wage earners.

Develop Sub-national Tourism. Since Iowa is not a major destination for the national tourism industry, sub-national tourism could be developed, emphasizing the cultural, historical, or archeological attractions of the region. Tourism is a basic type industry though it is seasonal and as such would represent more in terms of regional image than earnings.

Diversify to Higher-Lower Skills. The current industrial mix provides employment predominantly in the semiskilled area. Such jobs include painters, welders, assemblers, and the like. A possible goal is to develop employment opportunities for lower (or part-time employment) skills or higher-level skills. This would allow secondary earners to enter the labor force in non-service jobs and the more highly-skilled workers to advance to higher-paying jobs.

Emphasize Nondurables. This goal would provide a hedge against economic slumps or recessions since consumption of durables is usually postponed during tight money periods. Nondurable goods producers are less sensitive to national economic conditions.

Venture Capital. The development of local venture capital would assist the small entrepreneur. Possibly, this is an alternative way of aiding small local businesses, which tend to return capital to the region since they continue to distribute profit to capital outlays and straight owner's profit. Further, they provide more management opportunities to local persons than the branch of a national firm.

Diversify Retail/Wholesale. Since many purchases (retail) are made outside the region, it appears a likely and achievable goal to diversify the quality and range of consumer items in both the hard and soft goods lines, particularly in central business districts.

Improve Housing Stock. The housing stock in most urban areas is deteriorating, lacks variety and is older. New construction has not occurred in any significant numbers. Housing for the low- and moderate-income family, the elderly, and the handicapped needs the stimulation of public assistance.

Increase Density of Existing Centers. This implies reducing the attraction of rural housing sites and stimulating housing in existing cities as well as addressing rehabilitation of the existing housing stock in a dramatic way.

Reduce Fiscal Disparities. This goal could be achieved at various levels such as between counties, between cities, or across state lines. Great variations in the property tax rate occur across the region (and out of state) which affect property tax and ultimately housing location choices. Intergovernmental contracts, tax sharing, or payroll tax concepts are possible means to achieve change.

Protect Agricultural Land. In the region and the state, good agricultural land has been consumed for development. Since agricultural earnings are significant in the region, a strategy should reflect on rural land consumption.

Protect Floodplains. Each year, the nation experiences major economic losses due to floods. Since a large portion of the region's industry is located near the Mississippi River and other flood-prone areas, an area-wide strategy should be developed either to protect these areas with levees or prohibit further development. The eventual goal is to protect all floodplain areas.

Maintain Natural Areas. One of the positive and contributing factors in the "quality of life" aspect of the region is the availability of open space. These open spaces occur in the river valleys and in rural farm areas devoid of scattered residential development.

Energy Conservation. Since all energy for the region is imported and curtailments and shortages are a national occurrence (though not dramatic in the region), certain energy conservation policies could be sought. These might take the form of screening for industries requiring little process natural gas, restructuring insulation requirements, discouraging detached developments, or regulating outdoor lighting.

Reduce Commuting. This goal is actually an element of energy conservation but is addressed separately due to costs far beyond those of energy. Other costs include time spent by commuters and vehicle operating expenses. This goal could be achieved by reducing the polarity of workplace to residence or by increasing vehicle densities through car pools or van pools.

In addition to the above goals and their descriptions, others were suggested in write-in blanks of the questionnaire. Most notable among

these were the (a) need for water and/or sewer facilities in rural or small-town areas, (b) increased use of planning and zoning priorities, (c) conservation of natural resources, (d) diversification of government services, and (e) improving quality of life in small towns of the region. It could be argued that some of these are not of a regional nature.

The questionnaire was constructed in such a way as to require respondents to place the goals on a scale of 100 points giving each a numerical rating (e.g., 50 points or 10 points). Thus, all goals were given a point rating by each respondent. These individual scores were normalized to put each respondent on an equal mathematical base. This was accomplished by summing each set of ratings and dividing by the sum of the individual ratings on each questionnaire. These normalized ratings were summed for all respondents yielding a total set of points for each goal for the group. These group scores were converted to percents to show the relative weight each received in the total group of respondents. Finally, the goals were ranked to show the mathematically-based priority of each (see Table 10-1). Looking to the variance between scores as shown in percentage, several groupings appear (see Table 10-2).

Goals for regional development must be viewed within the total context in which they exist. The attainment of one goal can either complement or conflict with other goals. In other cases, a goal may, in fact, be a means to achieve other goals. Since all goals actually exist on a goal-means continuum and since all goals are interrelated these key relationships should be outlined (see Table 10-3). It is evident that goals are not in all cases clearly in conflict with each other. It depends, in part, how each goal will be achieved. For example:

1. Improving the highway access in the region could complement the housing variety needs by opening access to rural centers where housing demands are not as severe. If housing additions are provided equally along the easterly corridor of the region, with minor expansions in rural centers, access needs would be reduced greatly.

2. To reduce the out-migration of youth from the region by improving the housing stock and highway access system would, in most cases, represent a complementary set of goals since out-migration can be halted by providing new jobs for the young.

3. Protecting against the consumption of agricultural land can be in conflict with housing expansions. Since the greatest number of expansions must occur in the easterly corridor where agricultural land is often not at stake only minor conflicts should exist. Rural center housing expansion will tend to conflict in a more direct manner with the agricultural land preservation goal. Improved highway access normally conflicts with agricultural land preservation, particularly if new travel corridors are established in the region. Protecting agricultural land provides improved earnings for the region and as such should not conflict with expanding the younger-aged labor pool and thereby should help stem out-migration.

Table 10-1
GOALS EVALUATION TABULATION

Code	Description	Total Points	Group Normalized to Percent	Rank	Code
01	Improve Highway Access	177.2	7.1%	2	01
02	Develop River Transport	126.4	5.1	10	02
03	Upgrade Air Facilities	128.8	5.1	8	03
04	Improve Goods Movement	94.3	3.8	13	04
05	Reduce Out-migration of Youth	150.8	6.0	3	05
06	Improve Labor Skills	88.1	3.5	14	06
07	Coordinate Industrial Commissions	127.4	5.1	9	07
08	Steady Base Employment Growth	118.2	4.7	12	08
09	Develop Subnational Tourism	77.2	3.1	19	09
10	Diversify to Higher/Lower Skills	82.9	3.3	16	10
11	Emphasize Nondurables	56.9	2.3	21	11
12	Venture Capital	135.9	5.4	7	12
13	Diversify Retail/Wholesale	69.0	2.8	20	13
14	Improve Housing Stock	195.9	7.8	1	14
15	Densify Existing Centers	85.7	3.4	15	15
16	Reduce Fiscal Disparities	78.6	3.1	18	16
17	Protect Agricultural Land	149.1	6.0	4	17
18	Protect Floodplains	125.8	5.0	11	18
19	Maintain Natural Areas	139.0	5.6	6	19
20	Energy Conservation	147.9	5.9	5	20
21	Reduce Commuting	81.7	3.3	17	21
22	Water and Sewer in Rural Areas	24.7	1.0	22	22
23	Regional Planning and Zoning	14.6	0.6	23	23
24	Conserve Natural Resources	7.9	0.3	25	24
25	Diversify Government Services	6.9	0.3	26	25
26	Improve Rural Quality of Life	9.0	0.4	24	26

Source: Barton-Aschman Associates, Inc., 1975.

Table 10-2
PRIORITY GROUPINGS

Priority	Grouping
High	Improve Housing Stock
	Improve Highway Access
Medium	Reduce Out-migration of Youth
	Protect Agricultural Land
	Energy Conservation
	Maintain Natural Areas
	Venture Capital
	Upgrade Air Facilities
	Coordinate Industrial Commission
	Develop River Transport
	Protect Floodplains
Low	Steady Base Employment Growth
	Improve Goods Movement
	Improve Labor Skills
	Densify Existing Centers
	Diversify to Higher/Lower Skills
	Reduce Commuting
	Reduce Fiscal Disparities
	Develop Subnational Tourism
	Diversify Retail/Wholesale
	Emphasize Nondurables
	All Write-in Goals

Table 10-3
GOALS CONFLICT/COMPLEMENT MATRIX

Goals:	Goal 1.	Goal 2.	Goal 3.	Goal 4.	Goal 5.
1. Improve Housing Stock	-				
2. Improve Highway Access	XO	-			
3. Reduce Out-migration of Youth	O	O	-		
4. Protect Agricultural Land	XO	X	O	-	
5. Energy Conservation	XO	XO	O	O	-

Conflicting = X
Complementary = O
Conflicting and Complementary = XO

4. Energy conservation or consumption levels are quite sensitive to housing distribution and highway access. Large quantities of petroleum-based energy is consumed in work trips. If highway access means a good secondary road system to support auto commuting and a lower-level primary system causing longer and more costly goods movement trips, fuel consumption and costs could rise dramatically in the future. A compact system of development could reduce transportation fuel consumption. Also multi-family housing solutions consume drastically lower levels of natural gas for space heating purposes. Energy conservation should tend to reduce the out-migration of youth since implicit is a lower cost of living in both the housing and transportation consumption areas. If energy conservation implies more compact urban areas, then the agricultural land consumption should be minimized and a complementary relationship seems quite likely.

As stated in the goals questionnaire, all goals were to be rated in terms of their potential ability to achieve economic development for the region. What are the indicators of economic development?

Economic goals generally respond to the basic production side of the economy. Residentiary industries are thought to be, and by definition must be, considered secondary to or in support of the production of export goods and services. Only when the ratio of the residentiary-to-basic employment is low, is the residentiary side of the economy a question. In Southeast Iowa this ratio will be a question. Compared to other economic goals, it will be considered a secondary issue. Other economic issues are important in the region as well. Since the region's production economy focuses, to a great extent, on the manufacture of durable goods and since the macro-regional or national consumption of these goods varies with external events (i.e., inflationary trends), the balance between durable and nondurable manufacturing employment will be an issue. An effort should be made to balance these two factors to achieve to the extent possible, an "inflation-proof" base to the economy. Such a balancing tends to minimize the undesirable effects of external cyclical trends particularly at the national level.

Another key issue that can be stated in economic terms is the growth and stature of per capita personal income (PCPI) in the region. PCPI can be used as an index of the general economic well-being of the region. The region has experienced a good growth in PCPI and steps should be taken to maintain this position. PCPI has been rising steadily in the region for several reasons:

1. The historic out-migration of labor surpluses results in a lower number of unemployed or underemployed to draw down the PCPI. This is particularly true with the out-migration of youth from families in the agricultural sector where the number of agricultural-related jobs has been steadily declining.

2. As the region has matured from primary economic activities (agriculture, mining, foresting, etc.) to secondary activities (manufacturing and services), it has passed through a phase of drawing lower-wage, lower-skill industries to the region. Traditionally, this has meant employment opportunities for females who predominantly have not been household heads. This has given rise to increased labor participation rates--a factor which has fueled gains in the PCPI. Since there are upward limits to labor participation rates in any region, further advancements of secondary labor participation will level off and PCPI gains will follow similarly by leveling off. To advance the PCPI efforts, it will be necessary to attract quality employers to complement those already in the region who offer higher wage scales and selected residentiary industries primarily-oriented to services.

As such, the purely economic goals can be stated as follows:

1. Building in noncyclical characteristics into the export side of the local economy.

2. Gradually increasing per capita personal income in the region to at least equal national and Eastern Iowa trends.

These statements tend to be deceptively simple and actually represent several interrelated sub-goals or objectives as they have been discussed above. Nevertheless, they represent a set of goals against which other stated goals can be measured. In comparing these economic and noneconomic (or partially-economic) goals for regional development, the below matrix is of value (see Table 10-4).

DISCUSSION OF CELLS 1 AND 2

Historically, the region has been able to attract new export industries (i.e., Armour-Dial, Bluebird Industries, Vega Industries, Champion Products, etc.) due to the availability of labor at competitive wages. Since wages are, and have been, competitive, industries have been able

Table 10-4
GOALS MATRIX(1)

Stated Priority Goals	Build Noncyclical Export Sector	Increase PCPI
Improve Highway Access	Cell 1	Cell 2
Improve Housing Stock	Cell 3	Cell 4
Energy Conservation	Cell 5	Cell 6

(1)Discussion of cells follows.

to trade off transportation disadvantages for labor savings.[1] As the labor supply for low-skill industries approaches saturation, a wage spiral is a likely product between competing industries. A bidding and shifting of employment will occur until it reaches a point where labor costs combined with transportation costs will cause these industries to locate elsewhere.

Higher-quality industries with an ability to offer higher wages will seek more advantageous locations (i.e., closer to their markets) since the Southeast Iowa region is not well-situated vis-a-vis the Interstate Highway System. Further, as fuel costs rise, the costs of shipping by truck over highways will become a highly inflationary form of transportation. Additionally, as construction costs increase (35 percent last year) for highway building, the overall advantage of a ubiquitous regional highway network will become increasingly questionable.[2] As the costs of highway transportation increase for the purpose of goods movement, existing and prospective industries will probably make cost-saving reactions including:

1. Cost-saving hedges in transportation modes for finished products including rail or piggyback rail.

2. A generalized despecialization of production sites so that plants serve Midwest markets as opposed to national markets and take on wider product lines.

Improved highway access may mean a single north-south corridor through the region connecting St. Louis with I-80 to the north along the easterly agglomeration of cities. Building in a noncyclical aspect to the economy and increasing the PCPI with higher wage industries probably cannot be achieved with a ubiquitous, secondary-level access solution. Possible strategy areas may include:

1. A high-quality linkage particularly to the Interstate System to the north.

2. Greater attention to finished product modal transfer points (i.e., piggyback) and executive passenger service (i.e., jet passenger service).

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[1]The regional employment centers are beyond the normally accepted travel contour from the Interstate System for truck-type goods movement--a factor which adds costs to the final product.

[2]A ubiquitous highways system means a broadly based roadway providing high levels of secondary access throughout the region as opposed to development of limited access, high-speed corridors.

The generation of a residentiary division is not particularly related to increased primary access but relates rather to access to the regional hinterlands. At the present, there appears to be more than a threshold level of this type of access. Direct promotion and encouragement of residentiary-oriented service centers in existing cities might be a more realistic strategy.

DISCUSSION OF CELLS 3 and 4

The production of new residential units in the region has been dampened in recent months due to the increased costs of producing housing and the costs of financing with the latter being the most important dampening effect. The same factors have been working against the rehabilitation of existing units. Both the goal of building noncyclical export sectors and attracting higher-wage scale industries implies importation or retention of employment and families in the region. The availability of housing choices is a key factor in this process. A frequently forgotten factor in the housing situation is the quality of neighborhoods in which housing units exist. Neighborhood amenities must also be improved along with more direct housing unit improvements.

The level of the nonbasic sector (particularly retail and personal service sectors) could represent a greater proportion of the total economic activity in the area if the region had a greater level of employment of residents in the area. The converse is presently the case, with high levels of nonresident to resident-employees. Persons who are employed in the region but reside in other states or west of the region in Iowa do not spend as much of their disposable income within the region as would resident employees.

Interviews conducted throughout the region have enabled blockages in housing production to be identified.

1. The housing industry is composed of several smaller home builders who would not be considered major developers. Such builders do not have extensive credit sources nor do they study the housing market as thoroughly as would a larger developer. Most builders rely on scales of the prior year as their major market indicator. This type of building industry cannot be highly responsive to rapidly developing needs such as might be caused by new plant locations within the region. Many builders operate at a level of 25 to 30 units per year in standard subdivision settings. When the market for their own units slows, they tend to pass off developed but vacant parcels to even smaller volume builders in an effort to sell off their inventory of building lots. This reduces front-end costs of the larger builder.

2. The economies of scale practiced by existing regional builders do not permit a thorough understanding of the housing market. The housing market (particularly rental units) requires fairly sophisticated study.

A new plant opening may or may not be a signal for new units, since many prior plant openings draw employment from within the region or from a reasonable commuting distance and as such did not require new units. Further, data on housing units is not aggregated on a regional basis in a way that would show the builder a reasonable basis for projections. As a minimum, data should be made available (regionally) on new starts and demolitions by size and type. Further, as personal income rises (and historically it has), housing demand is generated by an undoubling effect of younger and older age household. Younger and older households desire individual units to the extent that their incomes will support such moves. This market should be quantified and units prepared to satisfy the demand.

The effect of this fragmented data base and smaller volume building industry has caused a close margin of supply (possibly a shortage or pent-up demand). This is based upon the more or less uniformly low vacancy rate in the region for standard units. As industrial job expansions occur, such expansions place immediate demands on a developer's system not accustomed to rapid change and the vacancy rate prohibits temporary residential opportunities. Here too, strategy elements could be of great worth.

DISCUSSION OF CELLS 5 AND 6

Energy conservation was not noted as a critical concern by power suppliers in the region. Further, it was rated only fifth among goals in the questionnaire. Over the long range, however, the consumption of natural gas and oil-based fuels will be a critical concern. Industry uses more energy than any other national consuming sector. In 1972, American industries consumed 30,000 trillion Btu's of fuels of all U.S. energy consumption. Of this amount of industrial consumption, 77 percent was accounted for in six industries; food processing, paper, chemicals, petroleum refining, stone/clay/glass products, and primary metals (particularly aluminium). The region is fairly well-represented by some of these industries (chemicals, stone/clay/glass products and food processing). In building a non-cyclical quality to the regional economy, the question of durable versus nondurable manufacturing should be studied. Since energy-intensive industries (defined by the ratio of Btu's per dollar of output) are not limited to either durables or nondurables, shortages of energy could generate serious ripple effects in the local economy. The specific energy needs of industries and their ability to shift between energy types will become a key variable in attracting industries from the outside. The most desirable industrial profile in this regard is the industry with high labor needs and little or no requirement for process gas or petroleum feedstocks. Similar principles apply to raising PCPI over the long range. Industries that require small amounts of energy and offer high wages and skills are the most desirous.

The spatial distribution of employment centers and residential areas in the region should be carefully planned to insure that high levels of auto commuting are not absolutely required to transport workers to

factories, offices, etc. Additionally, some thought should be given to resource or product movements into and out of the region since rail transport is four times as efficient as trucking and 63 times as efficient as air freight.

In any event, conservation of energy either through technological change (auto engine sizes or industrial processes) or voluntary conservation are the two tools available to the region. Allocation by the Federal Power Commission, the Federal Energy Office, or outside forces to which regional policy must react.

In summary, the question of goals as they may relate to regional policy will involve the weighing of pure economic goals with (a) transportation improvements, (b) housing variety and quantity, and (c) energy conservation or availability. Around this set of interrelated variables regional strategies will be developed.

PART IV: APPENDICES

Appendix A
BACKGROUND STUDY TABLES

Appendix Table 3-1
POPULATION: RURAL VERSUS URBAN BY COUNTY AND REGION, 1940-1970[1]

County	1940	1950	1960	1970	Percent Change 1940-50	Percent Change 1950-60	Percent Change 1960-70
Des Moines	36,804	42,056	44,605	46,982	+14.3	+ 6.1	+ 5.3
Town	28,404	33,740	36,854	38,138	+18.3	+ 9.2	+ 3.5
Rural	8,400	8,316	7,751	8,844	- 1.0	- 6.8	+14.1
Henry	17,994	18,708	18,187	18,114	+ 4.0	- 2.8	- 0.4
Town	8,728	10,136	11,695	11,788	+16.1	+15.4	+ 0.8
Rural	9,266	8,572	6,492	6,326	- 7.5	-24.3	- 2.6
Lee	41,074	43,102	44,207	42,996	+ 4.9	+ 2.6	- 2.7
Town	30,963	33,251	33,964	31,564	+ 7.4	+ 2.1	- 7.1
Rural	10,111	9,851	10,243	11,432	- 2.6	+ 4.0	+11.6
Louisa	11,384	11,101	10,290	10,682	- 2.5	- 7.3	+ 3.8
Town	5,052	5,424	5,200	5,679	+ 7.4	- 4.1	+ 9.2
Rural	6,332	5,677	5,090	5,003	-10.3	-10.3	- 1.7
Region Total	107,256	114,967	117,289	118,774	+ 7.2	+ 2.0	+ 1.3
Town Total	73,147	82,551	87,713	87,169	+12.9	+ 6.3	- 0.6
Rural Total	34,109	32,416	29,576	31,605	- 5.0	- 8.8	+ 6.9

Source: Population Trends of Incorporated Places in Iowa, 1900-1970.

[1] Town population includes all incorporated towns and cities; the rural population is all population living outside incorporated places.

Appendix Table 3-2
POPULATION: AGE GROUP SHIFTS BY REGION, 1950-70

Age Group	1950	1960	1970	Number Change 1950-60	Number Change 1960-70	Percent Change 1950-60	Percent Change 1960-70
0- 9	21,314	23,596	20,962	+2,282	-2,634	+10.7	-11.2
10-19	15,448	19,322	22,577	+3,874	+3,255	+25.1	+16.9
20-29	16,104	11,753	15,215	-4,351	+3,462	-27.0	+29.5
30-39	15,610	14,615	12,055	- 995	-2,560	- 6.4	-17.5
40-49	14,490	14,141	13,730	- 349	- 411	- 2.4	- 2.9
50-59	13,280	12,856	12,731	- 424	- 125	- 3.2	- 1.0
60-69	10,217	11,033	10,632	+ 816	- 401	+ 8.0	- 3.6
70-84	7,638	8,913	9,525	+1,275	+ 612	+16.7	+ 6.9
85+	866	1,060	1,347	+ 194	+ 287	+22.4	+27.1
Total	114,967	117,289	118,774	+2,322	+1,485	+ 2.0	+ 1.3

Source: U.S. Census of Population

Appendix Table 3-3
POPULATION: AGE AND SEX GROUPINGS BY REGION, COUNTY, AND COUNTY SEAT

	Region		Des Moines		Henry		Lee		Louisa	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Ages	57,530	61,244	22,328	24,654	8,852	9,262	21,098	21,898	5,252	5,430
0- 9	10,709	10,253	4,319	4,196	1,470	1,485	3,914	3,613	1,006	959
10-19	11,501	11,076	4,322	4,368	1,824	1,662	4,293	4,006	1,062	1,040
20-29	7,303	7,912	2,855	3,406	1,289	1,228	2,628	2,645	531	633
30-39	6,061	5,994	2,324	2,422	872	863	2,289	2,139	576	570
40-49	6,637	7,093	2,663	2,891	927	978	2,494	2,624	553	600
50-59	6,124	6,607	2,313	2,517	917	1,089	2,318	2,456	576	545
60-69	4,887	5,745	1,821	2,224	810	883	1,760	2,129	496	509
70 and over	4,308	6,564	1,711	2,630	743	1,074	1,402	2,286	452	574

	Burlington		Fort Madison		Keokuk		Mount Pleasant	
	Male	Female	Male	Female	Male	Female	Male	Female
All Ages	15,058	17,308	6,959	7,037	6,620	7,434	3,352	3,655
0- 9	2,956	2,878	1,136	1,088	1,281	1,161	501	515
10-19	2,862	2,958	1,281	1,244	1,348	1,267	731	639
20-29	1,964	2,396	967	805	800	904	630	551
30-39	1,479	1,608	877	711	662	692	312	332
40-49	1,781	1,942	899	842	761	888	327	361
50-59	1,522	1,768	764	789	744	868	308	412
60-69	1,264	1,691	378	775	575	763	288	357
70 and over	727	1,306	457	783	449	891	255	488

Source: U.S. Census of Population.

Appendix Table 3-4
POPULATION: AGE GROUPS BY COUNTY, 1950-1970

County and Age Group	1950	1960	1970	Number Change 1950-60	Number Change 1960-70	Percent Change 1950-60	Percent Change 1960-70
DES MOINES							
0- 9	7,815	9,250	8,515	+1,435	- 735	+ 18.4	- 7.9
10-19	5,426	7,183	8,690	+1,757	+1,507	+ 32.4	+ 21.0
20-29	6,188	4,637	6,261	-1,551	+1,624	- 25.1	+ 35.0
30-39	5,806	5,864	4,746	+ 58	-1,118	+ 1.0	- 19.1
40-49	5,283	5,189	5,554	- 94	+ 365	- 1.8	+ 7.0
50-59	5,035	4,727	4,830	- 308	+ 103	- 6.1	+ 2.2
60-69	3,608	4,189	4,045	+ 581	- 144	+ 16.1	- 3.4
70-84	2,593	3,167	3,795	+ 574	+ 628	+ 22.1	+ 19.8
85+	302	399	546	+ 97	+ 147	+ 32.1	+ 36.8
Total	42,056	44,605	46,982	+2,549	+2,377	+ 6.1	+ 5.3
HENRY							
0- 9	3,187	3,146	2,955	- 41	- 191	- 1.3	- 6.1
10-19	2,500	3,091	3,486	+ 591	+ 395	+ 23.6	+ 12.8
20-29	2,508	1,796	2,517	- 712	+ 721	- 28.4	+ 40.1
30-39	2,303	1,891	1,735	- 412	- 156	- 17.9	- 8.2
40-49	2,372	2,231	1,905	- 141	- 326	- 5.9	- 14.6
50-59	2,096	2,084	2,006	- 12	- 78	- 0.6	- 3.7
60-69	1,899	1,905	1,693	+ 6	- 212	+ 0.3	- 11.1
70-84	1,643	1,798	1,569	+ 155	- 229	+ 9.4	- 12.7
85+	200	245	248	+ 45	+ 3	+ 22.5	+ 1.2
Total	18,708	18,187	18,114	- 521	- 73	- 2.8	- 0.4
LEE							
0- 9	8,149	9,105	7,527	+ 956	-1,578	+ 11.7	- 17.3
10-19	5,735	7,271	8,299	+1,536	+1,028	+ 26.8	+ 14.1
20-29	6,018	4,313	5,273	-1,705	+ 960	- 28.3	+ 22.3
30-39	6,114	5,700	4,428	- 414	-1,272	- 6.8	- 22.3
40-49	5,508	5,550	5,118	+ 42	- 432	- 0.8	- 7.8
50-59	4,923	4,868	4,774	- 55	- 94	- 1.1	- 1.9
60-69	3,772	3,957	3,889	+ 185	- 68	+ 4.9	- 1.7
70-84	2,602	3,123	3,266	+ 521	+ 143	+ 20.0	+ 4.6
85+	281	320	422	+ 39	+ 102	+ 13.9	+ 31.9
Total	43,102	44,207	42,996	+1,105	-1,211	+ 2.6	- 2.7
LOUISA							
0- 9	2,163	2,095	1,965	- 68	- 130	- 3.1	- 6.2
10-19	1,787	1,777	2,102	- 10	+ 325	- 0.6	+ 18.3
20-29	1,390	1,007	1,164	- 383	+ 157	- 27.6	+ 15.6
30-39	1,387	1,160	1,146	- 227	- 14	- 16.4	- 1.2
40-49	1,327	1,171	1,153	- 156	- 18	- 11.8	- 1.5
50-59	1,226	1,177	1,121	- 49	- 56	- 4.0	- 4.8
60-69	938	982	1,005	+ 44	+ 23	+ 4.7	+ 2.3
70-84	800	825	895	+ 25	+ 70	+ 3.1	+ 8.5
85+	83	96	131	+ 13	+ 35	+ 15.7	+ 36.5
Total	11,101	10,290	10,682	- 811	+ 392	- 3.7	+ 3.8

Source: U.S. Census of Population

Appendix Table 3-5
NUMBER AND PERCENT OF EDUCATIONAL ATTAINMENT BY SEX, 1960-1970

Years of School Completed	Des Moines County				Henry County				Lee County				Louisa County				Iowa			
	1960		1970		1960		1970		1960		1970		1960		1970		1960		1970	
	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent	Number	Per-cent
MALE																				
25 years and older	12,245		12,294		5,224		4,846		12,776		11,589		2,913		2,946		745,604		727,522	
Elementary																				
8 years or less	4,802	39.2	3,298	26.8	2,307	44.1	1,464	30.2	5,681	44.4	3,453	29.7	1,204	41.3	848	28.7	314,333	42.1	209,972	28.8
High School																				
1 to 3	2,131	17.4	1,820	14.8	753	14.4	627	12.9	2,096	16.4	1,789	15.4	478	16.4	432	14.6	115,449	15.5	107,335	14.7
4 years	3,396	27.7	4,655	37.8	1,392	26.6	1,640	33.8	3,313	25.9	4,222	36.4	889	30.5	1,149	39.0	196,011	26.3	259,074	35.6
College																				
1 to 3	1,023	8.3	1,328	10.8	367	7.0	550	11.3	799	6.2	1,054	9.0	181	6.2	250	8.4	56,666	7.6	67,672	9.3
4 years or more	850	6.9	1,133	9.2	369	7.0	541	11.1	787	6.1	972	8.3	157	5.3	246	8.3	58,941	7.9	79,367	10.9
FEMALE																				
25 years and older	13,760		14,186		5,779		5,423		13,043		12,862		3,018		3,107		795,729		813,066	
Elementary																				
8 years or less	4,632	33.6	3,216	22.6	2,032	35.1	1,326	24.4	4,701	36.0	3,144	24.4	1,028	34.0	626	20.1	262,762	33.0	183,027	22.5
High School																				
1 to 3	2,510	18.2	2,446	17.2	973	16.8	766	14.1	2,399	18.3	2,316	18.0	481	15.9	420	13.5	127,133	16.0	123,699	15.2
4 years	4,665	33.9	5,944	41.9	1,729	29.9	2,043	37.6	4,352	33.3	5,226	40.6	1,013	33.5	1,397	44.9	271,002	34.1	337,575	41.5
College																				
1 to 3	1,272	9.2	1,611	11.3	662	11.4	709	13.0	975	7.4	1,302	10.1	375	12.4	464	14.9	91,732	11.5	103,782	12.7
4 years	642	4.6	909	6.4	352	6.0	545	10.0	574	4.4	768	5.9	108	3.4	182	5.8	39,609	5.0	60,752	7.4

PERCENT CHANGE	Des Moines County	Henry County	Lee County	Louisa County	Iowa
Male: 25 years and older					
Elementary--8 years or less	-12.4	-13.9	-14.7	-12.6	-15.5
High School--1 to 3 years	- 2.6	- 1.5	- 1.0	- 1.8	- 0.8
4 years	10.1	7.2	10.5	8.5	9.3
College--1 to 3	2.5	4.3	2.8	2.2	1.7
4 years or more	2.3	4.1	2.2	3.0	3.0
Female: 25 years and older					
Elementary--8 years or less	-11.0	-10.7	-11.6	-13.9	-10.5
High School--1 to 3 years	- 1.0	- 2.7	- 0.3	- 2.4	- 0.8
4 years	8.0	7.7	7.3	11.4	7.4
College--1 to 3	2.1	1.6	2.7	2.5	1.2
4 years or more	1.8	4.0	1.5	2.4	2.4

Appendix Table 3-6
EDUCATION FOR IOWA AND COUNTIES, PERSONS OVER 25 YEARS OF AGE--1970

	Total	Male	Female
Des Moines County	26,480	12,294	14,186
Less than 5 years		260	154
Less than 8 years		951	857
Grades 5-12		9,573	11,512
Less than 12 years		4,167	4,805
High School Graduates		4,655	5,944
With College		2,461	2,520
Median years completed		12.2	12.2
Henry County	10,269	4,846	5,423
Less than 5 years		115	78
Less than 8 years		329	234
Grades 5-12		3,640	4,091
Less than 12 years		1,762	1,858
High School Graduates		1,640	2,043
With College		1,091	1,254
Median years completed		12.2	12.3
Lee County	24,451	11,589	12,862
Less than 5 years		375	291
Less than 8 years		1,143	939
Grades 5-12		9,188	10,501
Less than 12 years		4,096	4,521
High School Graduates		4,222	5,226
With College		2,026	2,070
Median years completed		12.1	12.2
Louisa County	6,053	2,946	3,107
Less than 5 years		77	51
Less than 8 years		236	140
Grades 5-12		2,373	2,410
Less than 12 years		1,044	906
High School Graduates		1,149	1,397
With College		496	646
Median years completed		12.1	12.4
Totals -- Iowa			
25 years and older	1,540,588	727,522	813,066
No school	8,513	4,282	4,231
Grades 1-4	20,106	11,801	8,305
Less than 8 (grades 1-7)	108,288	60,654	47,634
Grades 5-12	1,200,396	564,400	635,996
Less than 12 (grades 8-11)	515,565	256,473	259,092
High School Graduates	596,649	259,074	337,575
With College	311,573	147,039	164,534
Median Years Completed		12.2	12.3

Source: U.S. Census of Population.

Appendix Table 4-1
WAGE SURVEY, BY COUNTY--AREA XVI DONE OCTOBER, 1974
SCOTT COUNTY (DAVENPORT AREA DONE JANUARY, 1974

Occupation	Weighted Average(1)					Beginning Average(1)				
	Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South	Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South
Professional (Technical and Managerial)										
Accountant	$	$5.99	$5.06	$7.52	$7.01	$	$5.01	$3.60	$4.90	$6.52
Administrative Secretary		3.98	3.43	4.09	3.72		3.29	3.01	2.87	2.74
Cost Accountant		5.88		4.84			4.61		4.63	
Dietetic Technician			4.22					3.29		
Draftsman	4.73	4.95				3.31	3.60			
Industrial Engineer		5.87		7.14	5.65		4.83		5.09	5.28
Manager, Traffic		6.18					4.66			
Medical Assistant		3.28					2.80			
Medical Laboratory Assistant			3.45					2.85		
Nurse, Licensed Practical	2.82	2.92	3.22	3.22		2.79	2.64	2.62	2.63	
Nurse, Registered		422	4.08	4.31	3.97		3.66	3.71	3.65	3.54
Occupational Therapy Aid			3.30					2.92		
Office Manager	4.37	4.92	4.59	5.45	4.72	3.57	3.85	4.32	3.48	4.36
Programmer	5.18	5.70			4.90	4.04				
Quality Control Technician	5.19	4.23		4.92		4.80	3.55		4.01	
Retail Store Manager	5.45	5.09	5.02	5.38	5.00	4.81	4.55	3.75	4.41	4.32
Clerical (Records, Systems Techniques)										
Accounting Clerk	$	$3.33	$2.85	$4.00	$3.30	$	$2.86	$2.27	$2.48	$3.23
Bookkeeper	3.23	3.62	2.85	3.09	3.42	2.58	2.90	2.50	2.34	3.09
Bookkeeper Machine Operator		2.65	2.86	2.48	2.71		2.39	2.00	2.19	2.44
Cashier	2.50	2.53	2.63	2.51		2.35	2.25	2.50	1.94	
Cashier-Checker	1.75	2.65	2.87	2.75	2.61	1.65	2.39	2.25	2.45	2.15
Clerk, General Office	2.85	3.31	2.86	3.44	3.32	2.20	2.69	2.33	2.33	2.24
Clerk, Typist	2.27	2.94	2.28	2.84	2.48	1.96	2.59	2.20	2.58	2.28
Computer Operator	4.29	4.17		5.17		3.17	3.42		4.10	
File Clerk	2.04	2.49		2.76	2.46	2.02	2.27		2.42	2.19

SOURCE: Iowa Employment Security Commission. No listings made, unless three, or more, firms responded to survey.
NOTE: Mid-point wage; wage rate that divides the distribution into two equal parts.

(1)Definitions:

-- *Weighted Average* is an average hourly wage. It means assigning more importance or "weight" to those rates having greater frequency, or appearing in the greatest number. Each rate is multiplied by its frequency, summing these products, and dividing the sum by the total number of frequencies.
-- *Beginning Average* is an entry level wage for qualified but not experienced or those who need supervision for a period of time.
-- *Monthly Rate*; the hourly rate is multiplied by 173.33 (number of hours in an average month if working a 40-hour week.

Appendix Table 4-1
WAGE SURVEY, BY COUNTY--AREA XVI DONE OCTOBER, 1974
SCOTT COUNTY (DAVENPORT AREA DONE JANUARY, 1974 (CONTINUED)

Occupation	Weighted Average(1) Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South	Beginning Average(1) Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South
Clerical (Continued) (Records, Systems Techniques)										
Inventory Clerk	$	$3.33	$3.28	$3.16	$2.73	$	$3.06	$2.78	$2.45	$2.54
Key Punch Operataor	3.26	3.04	3.14	3.49		2.34	2.75	2.72	2.75	
Mail Clerk	2.50	3.00	3.50	3.40		2.01	2.62	2.82	2.68	
Medical Record Clerk	2.55	2.52	3.24			2.43	2.42	2.51		
Medical Secretary			3.01					2.64		
Order Clerk		3.36		3.33	2.45		3.04		2.69	2.07
Payroll Clerk		3.60	3.09	3.79	3.25		2.90	3.07	2.93	2.96
Production Clerk		3.81		3.30			3.09		2.54	
Receptionist	2.57	2.70	2.43	3.01	2.70	2.51	2.50	2.17	2.42	2.50
Secretary		3.49	2.83	3.82	3.26		2.70	2.43	2.42	2.62
Shipping-Receiving Clerk	3.58	3.23	3.28	3.95	2.85	2.76	3.02	2.90	3.21	2.70
Statistical Clerk	3.27		3.24			2.72		2.51		
Stenographer	2.74	3.47	2.87	4.07	3.18	2.51	3.44	2.56	2.60	2.80
Telephone Operator	2.40	3.08	2.74	3.79	2.29	2.11	2.48	2.37	2.40	2.22
Transcribing Machine Operator	2.63		3.47			2.47		2.58		
Sales										
Salesman, Driver	$	$4.41	$3.40	$3.46	$4.01	$	$4.42	$2.54	$2.63	$4.00
Salesman, General		2.69	2.82	4.55	4.30		2.00	2.52	3.05	3.38
Salesperson, General	2.29	3.10	2.90	2.45	2.32	1.73	2.43	2.25	2.20	2.09
Sales (Occupations in Survey-January, 1974 *not* included in October, 1974 Survey)										
Salesperson, Hardware	$	$3.12	$	$	$	$	$1.82	$	$	$
Salesperson, Home Furnishing		2.45					NA			
Salesperson, Menswear		2.39					NA			
Salesperson, Women's Garments	2.10	1.98				2.00	1.68			
Salesperson, Industrial, Traveling		3.77					2.64			

SOURCE: Iowa Employment Security Commission. No listings made, unless three, or more, firms responded to survey.
NOTE: Mid-point wage; wage rate that divides the distribution into two equal parts.

(1)Definitions:

-- *Weighted Average* is an average hourly wage. It means assigning more importance or "weight" to those rates having greater frequency, or appearing in the greatest number. Each rate is multiplied by its frequency, summing these products, and dividing the sum by the total number of frequencies.
-- *Beginning Average* is an entry level wage for qualified but not experienced or those who need supervision for a period of time.
-- *Monthly Rate;* the hourly rate is multiplied by 173.33 (number of hours in an average month if working a 40-hour week.

Appendix Table 4-1
WAGE SURVEY, BY COUNTY--AREA XVI DONE OCTOBER, 1974
SCOTT COUNTY (DAVENPORT AREA DONE JANUARY, 1974 (CONTINUED)

Occupation	Weighted Average (1)					Beginning Average (1)				
	Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South	Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South
Service										
Admitting Clerk, Hospital	$2.13	$	$2.74	$	$	$2.05	$	$2.46	$	$
Cook, Institutional	2.86	2.74	2.49			3.50	2.62	2.27		
Dry Cleaner		2.32					2.10			
Janitor	2.11	3.52	2.34	2.70	2.93	2.18	2.92	2.10	2.41	2.90
Meat Cutter		5.62	4.68	5.10	5.71		4.79	4.35	4.74	NA
Nurse Aid/Orderly		2.35	2.57	2.42			2.18	2.10	2.13	
Watchman		3.87		3.22			3.19		3.40	
Production and Related Items										
Auto Body Repairman	$3.82	$	$3.32	$3.73	$	$4.00	$	$3.00	$3.13	$
Automobile Mechanic	3.25	4.82	3.56	3.42	4.04	1.96	3.85	2.72	2.88	3.65
Building Maintenance Man		3.97	3.39	4.08	3.65		3.47	3.25	3.18	3.09
Carpenter	7.22	7.58	4.85		7.33	7.20	6.98	2.42		5.58
Cut-off Saw Operator, Metal		4.02					3.51			
Drill Press Operator		4.13	2.91		2.90		3.67	2.47		2.82
Electrician				6.94					4.00	
Fabricator-Assembler, Metal		3.76					3.25			
General Inspector		5.40	4.08		3.28		4.08	3.22		3.13
General Machinist	5.30				4.41	4.48				4.31
Grain-Elevator Man		3.10	3.04	2.27			2.66	2.52	1.98	
Industrial Maintenance Mechanic	4.89	4.62			4.40	4.16	3.94			3.95
Industrial Truck Operator	4.27	4.55	3.60	4.06	4.75	3.62	3.53	3.10	3.60	4.37
Lineman (Poles, Towers, Powerlines)			5.41	6.10				3.01	3.08	
Machine Helper, Fabricating Equipment)		3.26					3.23			
Machine Set-up Operator	4.89	5.76			4.01	5.09	4.80			3.34
Metal Products, Fabricating Assembler	3.71					3.60				
Maintenance Electrician	5.88	5.65		5.98	5.55	4.86	4.00		4.66	4.80
Material Handler		3.75	3.16	3.86	3.65		3.35	2.54	3.34	3.06
Millwright				4.49					4.17	
Operating Engineer		5.76	5.36		7.63		4.90	3.85		NA

SOURCE: Iowa Employment Security Commission. No listings made, unless three, or more, firms responded to survey.
NOTE: Mid-point wage; wage rate that divides the distribution into two equal parts.

(1) Definitions:
-- *Weighted Average* is an average hourly wage. It means assigning more importance or "weight" to those rates having greater frequency, or appearing in the greatest number. Each rate is multiplied by its frequency, summing these products, and dividing the sum by the total number of frequencies.
-- *Beginning Average* is an entry level wage for qualified but not experienced or those who need supervision for a period of time.
-- *Monthly Rate;* the hourly rate is multiplied by 173.33 (number of hours in an average month if working a 40-hour week.

Appendix Table 4-1
WAGE SURVEY, BY COUNTY--AREA XVI DONE OCTOBER, 1974
SCOTT COUNTY (DAVENPORT AREA DONE JANUARY, 1974) (CONTINUED)

Occupation	Weighted Average(1)					Beginning Average(1)				
	Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South	Scott (Davenport)	Des Moines (Burlington)	Henry and Louisa	Lee (Ft. Madison) North	Lee (Keokuk) South
Production and Related Items (Continued)										
Offset Pressman, Lithograph	$5.30	$	$2.79	$	$	$3.24	$	$2.00	$	$
Order Filler, Receives-Distributes		3.77	3.53		3.38		2.90	3.24		2.10
Packager, Materials-Products		3.55		3.16			3.08		2.98	
Painter, Products-Fixtures	6.75					5.17				
Pipe Fitter, Piping Sytems	8.50					8.25				
Photographer, Lithographic		3.50					3.23			
Plumber, Installs-Repairs	7.93	6.94		5.28		8.25			3.98	
Production Foreman		6.79	4.71	5.10	6.20		5.33	4.35	4.39	5.10
Production Machine Operator	3.40	3.89	3.49		2.83	2.85	3.45	3.07		2.61
Punch Press Operator	3.42	3.93		3.82		3.03	3.72		3.10	
Riveting Machine Operator		2.91					3.08			
Stationary Equipment Engineer				5.07					4.68	
Screw Machine Operator		5.52					3.22			
Sheetmetal Worker	7.74					4.13				
Tool and Die Maker	5.86	5.76		4.14	4.98	4.96	5.09		3.67	4.35
Tractor-Trailer Truck Driver		5.13		4.05			4.64		3.77	
Truck Driver, Heavy		5.41	5.13		4.51		4.38	3.00		3.83
Truck Driver, Light	3.01	4.10		3.91		2.88	3.20		3.13	
Welder, Arc		4.79			5.35		4.30			4.51
Welder, Combination	4.31		4.32	4.27	5.64	4.25		NA	4.29	4.51
Welder, Gas		4.37					4.04			

SOURCE: Iowa Employment Security Commission. No listings made, unless three, or more, firms responded to survey.
NOTE: Mid-point wage; wage rate that divides the distribution into two equal parts.

(1)Definitions:
-- *Weighted Average* is an average hourly wage. It means assigning more importance or "weight" to those rates having greater frequency, or appearing in the greatest number. Each rate is multiplied by its frequency, summing these products, and dividing the sum by the total number of frequencies.
-- *Beginning Average* is an entry level wage for qualified but not experienced or those who need supervision for a period of time.
-- *Monthly Rate;* the hourly rate is multiplied by 173.33 (number of hours in an average month if working a 40-hour week.

Appendix Table 4-1
LABOR PARTICIPATION BY SEX--IOWA, REGION AND COUNTIES, 1960-1970

		1960		1970		
		Male	Female	Male	Female	Male and Female
Iowa	Civilian Labor Force(1) (2)	734,614	318,018	715,754	411,679	1,127,433
	Employed	710,684	308,318	695,634	392,706	
	Unemployed	23,930	9,700	20,120	18,973	
	Participation Rate in Percent	78	32	77	40	58
	Unemployment Rate in Percent (3)	3.3	3.1	2.8	4.6	
Male and Female Population, 16 Years and Up						1,960,685
Region	Civilian Labor Force(1) (2)	30,856	14,727	30,076	19,123	49,199
	Employed	29,768	14,050	29,148	17,453	
	Unemployed	1,088	669	928	1,670	
	Participation Rate in Percent	76	34	76	43	59
	Unemployment Rate in Percent(3)	3.5	4.6	3.1	8.7	
Male and Female Population, 16 Years and Up						83,509
Des Moines County	Civilian Labor Force(1) (2)	12,103	6,240	11,983	8,276	20,259
	Employed	11,669	5,964	11,652	7,549	
	Unemployed	434	272	331	727	
	Participation Rate in Percent	85	38	79	47	61.7
	Unemployment Rate in Percent(3)	3.6	4.4	2.8	8.8	
Male and Female Population, 16 Years and Up						32,849
Henry County	Civilian Labor Force(1) (2)	4,697	2,178	4,704	3,075	7,779
	Employed	4,588	2,084	4,573	2,875	
	Unemployed	109	90	131	200	
	Participation Rate in Percent	74	32	74	45	59.5
	Unemployment Rate in Percent(3)	2.3	4.1	2.8	6.5	
Male and Female Population, 16 Years and Up						13,084

Source: U.S. Census of Population

(1) Civilian labor force for 1960 is 14 years of age and older.

(2) Civilian labor force for 1970 is 16 years of age and older.

(3) Last week in March.

Appendix Table 4-1
LABOR PARTICIPATION BY SEX--IOWA, REGION AND COUNTIES, 1960-1970

		1960		1970		
		Male	Female	Male	Female	Male and Female
Lee County	Civilian Labor Force(1) (2)	11,096	5,295	10,694	6,310	17,004
	Employed	10,640	5,018	10,265	5,653	
	Unemployed	456	277	429	657	
	Participation Rate in Percent	74	34	74	40	56.3
	Unemployment Rate in Percent(3)	4.1	5.2	4.0	10.4	
Male and Female Population, 16 Years and Up						30,177
Louisa County	Civilian Labor Force(1) (2)	2,960	1,014	2,695	1,462	4,157
	Employed	2,871	984	2,658	1,376	
	Unemployed	89	30	37	86	
	Participation Rate in Percent(3)	85	29	75	38	56.2
	Unemployment Rate in Percent	3.0	3.0	1.4	5.9	
Male and Female Population, 16 Years and Up						7,399

Source: U.S. Census of Population

(1)Civilian labor force for 1960 is 14 years of age and older.

(2)Civilian labor force for 1970 is 16 years of age and older.

(3)Last week in March.

Supplement to Appendix Table 4-1
LABOR PARTICIPATION RATE (BOTH SEXES) BY COUNTY[1]

	Annual Averages				Nine-Month Average	Total Both Sexes Population
	1970	1971	1972	1973	1974	
Des Moines						
Civilian Labor Force	20,760	19,530	19,710	20,210	20,420	
Unemployed	1,140	1,220	900	630	674	
Unemployment Rate	5.5	6.2	4.6	3.1	3.3	
Participation Rate	63.2	59.5	.60	61.5	62.2	
D.M. Total Both Sexes, 16 Years 32,849 (Census)						
North Lee (Ft. Madison)						
Civilian Labor Force	8,960	9,000	9,550	10,260	10,699	
Unemployed	500	490	340	290	305	
Unemployment Rate	5.5	5.4	3.6	2.9	2.9	
South Lee (Keokuk)						1974 Combined North and South Lee County
Civilian Labor Force	9,010	8,850	7,450	9,160	8,996	19,695
Unemployed	530	610	380	430	476	782
Unemployment Rate	5.9	6.9	5.1	4.7	5.3	4.0
Participation Rate, (both North and South Lee County)	59.6	59.2	56.3	64.4	65.3	30,177 (Census) (16 Years)
Henry County						
Civilian Labor Force	8,370	8,480	8,570	8,590	8,650	
Unemployed	440	530	360	250	292	
Unemployment Rate	5.3	6.3	4.2	2.9	3.4	
Participation Rate	64.0	64.6	65.5	65.6	66.1	
Both Sexes, 16 Years and Over 13,084 (Census)						

[1] Participation Rate: The number of persons in the labor force expressed as a percentage in the total population. All persons 16 years and older; i.e., Labor Force ÷ Population.
Data from ISES - Labor force converted from work force.

Supplement to Appendix Table 4-1
LABOR PARTICIPATION RATE (BOTH SEXES) BY COUNTY(1) (CONTINUED)

	Annual Averages				Nine-Month Average	Total Both Sexes Population
	1970	1971	1972	1973	1974	
Louisa County						
Civilian Labor Force	4,490	4,570	4,590	4,670	NA	
Unemployed	160	180	150	110	NA	
Unemployment Rate	3.6	3.9	.3	2.2	NA	
Participation Rate	60.7	61.8	62.0	63.1	NA	
Both Sexes, 16 Years and Over						7,399 (Census)

(1) Participation Rate: The number of persons in the labor force expressed as a percentage in the total population. All persons 16 years and older; i.e., Labor Force ÷ Population.
Data from ISES - Labor force converted from work force.

Appendix Table 4-2
LABOR PARTICIPATION RATE BY AGE AND SEX BY COUNTY, 1970

Age Group	Des Moines County		Henry County		Lee County		Louisa County	
	Male	Female	Male	Female	Male	Female	Male	Female
14 and 15	21.3	13.1	26.3	15.8	22.1	8.7	29.5	9.3
16 and 17	46.7	40.9	42.1	27.5	40.8	24.8	44.7	40.5
18 and 19	65.1	56.4	52.5	53.6	78.4	57.2	68.3	43.1
20 and 21	70.7	61.7	72.6	61.8	79.5	66.8	-	51.9
22 - 24	87.6	56.0	84.9	59.2	83.5	57.7	100.0	54.3
25 - 34	97.5	38.6	94.5	51.8	83.5	44.3	95.5	23.7
35 - 44	97.7	43.2	96.1	56.1	89.6	52.9	97.6	51.0
45 - 64	91.8	46.4	91.0	56.3	87.4	46.6	86.5	55.4
65 and over	30.3	15.1	30.1	13.1	28.8	9.6	23.2	8.9

Source: U.S. Census of Population.

Appendix Table 4-3
POPULATION: RURAL VERSUS URBAN BY COUNTY AND REGION, 1940-1970[1]

County	1940	1950	1960	1970	Percent Change 1940-50	Percent Change 1950-60	Percent Change 1960-70
Des Moines	36,804	42,056	44,605	46,982	+14.3	+ 6.1	+ 5.3
Town	28,404	33,740	36,854	38,138	+18.3	+ 9.2	+ 3.5
Rural	8,400	8,316	7,751	8,844	- 1.0	- 6.8	+14.1
Henry	17,994	18,708	18,187	18,114	+ 4.0	- 2.8	- 0.4
Town	8,728	10,136	11,695	11,788	+16.1	+15.4	+ 0.8
Rural	9,266	8,572	6,492	6,326	- 7.5	-24.3	- 2.6
Lee	41,074	43,102	44,207	42,996	+ 4.9	+ 2.6	- 2.7
Town	30,963	33,251	33,964	31,564	+ 7.4	+ 2.1	- 7.1
Rural	10,111	9,851	10,243	11,432	- 2.6	+ 4.0	+11.6
Louisa	11,384	11,101	10,290	10,682	- 2.5	- 7.3	+ 3.8
Town	5,052	5,424	5,200	5,679	+ 7.4	- 4.1	+ 9.2
Rural	6,332	5,677	5,090	5,003	-10.3	-10.3	- 1.7
Region Total	107,256	114,967	117,289	118,774	+ 7.2	+ 2.0	+ 1.3
Town Total	73,147	82,551	87,713	87,169	+12.9	+ 6.3	- 0.6
Rural Total	34,109	32,416	29,576	31,605	- 5.0	- 8.8	+ 6.9

Source: Population Trends of Incorporated Places in Iowa, 1900-1970.

[1] Town population includes all incorporated towns and cities; the rural population is all population living outside incorporated places.

Appendix Table 4-4
INTERCOUNTY COMMUTING PATTERNS BY COUNTY, 1970[1]

	Number		Number
Des Moines County			
Number of workers living in county	19,924	Number working in county	21,318
Live and work in county	17,279	Work and live in county	17,279
Burlington City	12,859	Work in county, live outside of county	4,131
Des Moines County (excluding Burlington)	4,420		
Live in county, work outside of county	845	Lee County	1,028
Lee County	341	Henry County	1,000
Henry County	81	Henderson County, Illinois	851
McDonough County, Illinois	23	Louisa County	423
Henderson County, Illinois	21	Hancock County, Illinois	288
Hancock County, Illinois	15	Jefferson County	159
Louisa County	13	Van Buren County	101
Warren County, Illinois	8	Clark County, Missouri	79
Washington County	8	Warren County, Illinois	71
Clarke County	7	McDonough County, Illinois	67
Jefferson County	7	Appanoose County	25
Moline City, Illinois	6	Washington County	19
Davenport City	5	Scotland County, Missouri	13
Mercer County, Illinois	5	Muscatine County	19
All other locations	305	Knox County, Missouri	NA[2]
		Lewis County, Missouri	NA
Place of work not reported	1,130		
Henry County			
Number of workers living in county	7,420	Number working in county	6,337
Live and work in county	5,827	Work and live in county	5,827
Live in county, work outside of county	1,313	Work in county, live outside of county	519

[1] Note that the total number of workers working in a county but living outside are not complete. The proportionate levels of 1970 commuting among counties should be representative, however.

[2] Exact figures are not available, but less than 100 for each county listed.

Appendix Table 4-4
INTERCOUNTY COMMUTING PATTERNS BY COUNTY, 1970 (CONTINUED)

	Number		Number
Henry County (Continued)			
Iowa City	11	Jefferson County	122
Muscatine County	7	Washington County	91
Rock Island County (excluding Rock Island and Moline)	7	Lee County	89
Keokuk County	7	Des Moines County	81
Rock Island, Illinois	6	Van Buren County	42
Henderson County, Illinois	5	Johnson County	36
Clark County, Missouri	0	Louisa County	33
All other locations	86	Muscatine County	16
		Hancock County, Illinois	9
		Henderson County, Illinois	0
Place of work not reported	280	Clark County, Missouri	0
		McDonough County, Illinois	NA
		Warren County, Illinois	NA
		Knox County, Missouri	NA
		Lewis County, Missouri	NA
		Scotland County, Missouri	NA
Lee County			
Number of workers living in county	15,816	Number working in county	14,070
Live and work in county	13,479	Work and live in county	13,479
Live in county, work outside of county	1,493	Work in county, live outside of county	2,287
Des Moines County (excluding Burlington)	524	Hancock County, Illinois	1,142
Burlington City	504	Clark County, Missouri	509
Henry County	89	Des Moines County	341
Hancock County, Illinois	56	Van Buren County	141
Van Buren County	42	Henry County	84
Clark County, Missouri	35	Scotland County, Missouri	20
McDonough County, Illinois	15	Lewis County, Missouri	18
Jefferson County	6	Warren County, Illinois	NA
Quincy City, Illinois	6	Johnson County	18
Louisa County	0	Jefferson County	7
Knox County, Missouri	0	Henderson County, Illinois	6
Lewis County, Missouri	0	Louisa County	0
Scotland County, Missouri	0	Knox County, Missouri	0
Warren County, Illinois	0	McDonough County, Illinois	0
Henderson County, Illinois	0		
All other locations	216		
Place of work not reported	844		

Appendix Table 4-4
INTERCOUNTY COMMUTING PATTERNS BY COUNTY, 1970 (CONTINUED)

	Number		Number
Louisa County			
Number of workers living in county	3,983	Number working in county	2,683
Live and work in county	2,465	Work and live in county	2,465
Live in county, work outside of county	1,182	Work in county, live outside of county	218
Muscatine County	577	Muscatine County	81
Burlington City	310	Washington County	79
Des Moines County (excluding Burlington)	113	Henry County	21
Washington County	46	Keokuk County	16
Iowa City	35	Des Moines County	13
Henry County	33	Johnson County	8
Rock Island City, Illinois	7	Lee County	0
Davenport City	6	Henderson County, Illinois	0
Lee County	0	Hancock County, Illinois	NA
Henderson County, Illinois	0	McDonough County, Illinois	NA
All other locations	55	Warren County, Illinois	NA
		Clark County, Missouri	NA
		Knox County, Missouri	NA
Place of work not reported	336	Lewis County, Missouri	NA
		Scotland County, Missouri	NA

Source: Iowa Employment Security Commission and Social and Economic Statistics Administration, Bureau of the Census.

Appendix Table 4-5
NET COMMUTING PATTERNS BY COUNTY, 1970

Net Commutation of Iowa Counties		
Des Moines County	Net In-commuting	+3,194
Henry County	Net Out-commuting	- 803
Lee County	Net Out-commuting	- 902
Louisa County	Net Out-commuting	- 964

Source: Iowa Employment Security Commission.

Appendix Table 4-6
UNEMPLOYMENT BY ONE YEAR INTERVALS BY COUNTY--1960, 1967-1973

County	1960[1]	1967	1968	1969	1970	1971	1972	1973	1974
Des Moines	3.8	2.3	2.0	2.9	4.7	5.4	3.9	2.7	2.6
Henry	2.9	NA	NA	NA	4.3[1]	6.5	4.4	3.1	3.7
Lee	4.5	2.6	2.3	2.8	5.3	5.5	4.3	3.5	3.7
Louisa	3.0	NA	NA	NA	3.0[1]	5.4	4.1	NA	NA

Source: ISES, annual averages used.

[1]Source: U.S. Census.

NA: Not available.

Appendix Table 4-7
LABOR FORCE, UNEMPLOYMENT, AND UNEMPLOYMENT RATE, U. S. AND IOWA, 1961-73

Year	Iowa			U.S.
	Labor Force(1) (1,000)	Unemployment (1,000)	Unemployment Rate	Unemployment Rate
1961	1123.8	41.6	3.7	6.7
1962	1124.6	34.2	3.0	5.5
1963	1121.4	30.1	2.7	5.7
1964	1126.0	26.5	2.4	5.2
1965	1136.6	22.8	2.0	4.5
1966	1197.7	24.3	2.0	3.8
1967	1205.2	28.8	2.4	3.8
1968	1224.6	29.8	2.5	3.6
1969	1236.0	33.7	2.7	3.5
1970	1200.5	44.8	3.7	4.9
1971	1218.7	51.4	4.2	5.9
1972	1255.5	45.1	3.6	5.6
1973	1294.0	37.0	2.9	4.9
July, 1974	1390.2	43.8	3.2	5.3

Sources: Bureau of Labor Statistics
Iowa Employment Security Commission

(1) Prior to 1970 labor force was calculated by place of work. Currently it is being calculated by place of residence.

Appendix Table 4-8
CHARACTERISTICS OF THE UNEMPLOYED, DES MOINES COUNTY AREA, 1973-1974

	Percent of Total (February, 1974)	Percent of Total (February, 1973)
Age		
Under 22	38.9	54.6
22-44	47.4	37.6
45 and over	13.7	7.8
Sex		
Male	51.5	54.7
Female	48.5	45.3
Ethnic Group		
White	97.0	96.8
Negro	2.6	2.9
Other	0.4	0.3
Veteran	16.8	14.7
Vietnan Era	8.7	9.5
Handicapped	2.6	2.2
Handicapped	10.7	6.8
Poor	13.2	18.7
Disadvantaged	9.4	14.4
Minority	3.8	3.5

Source: Iowa Employment Security Commission.

Appendix Table 4-9
OCCUPATIONAL CHARACTERICTICS OF UNEMPLOYED BY COUNTY--1960, 1970

	Des Moines		Henry		Lee		Louisa	
	Male	Female	Male	Female	Male	Female	Male	Female
1960								
Professional and Technical	7	4	4	-	4	-	-	-
Farmers and Farm Managers	8	-	-	-	4	-	-	-
Managers, Officials (Excluding Farmers)	4	-	4	-	11	3	-	-
Clerical and Kindred	27	52	4	17	19	36	4	4
Sales	8	20	13	4	4	12	-	-
Crafts, Foremen	125	-	29	-	101	11	28	-
Operatives	82	93	20	16	83	143	23	14
Private Household	-	12	-	4	-	-	-	-
Service (Excluding Private Household)	40	59	8	30	49	15	4	12
Farm Labor and Foremen	7	-	4	-	8	4	16	-
Laborers (Excluding Farm)	68	-	12	-	122	4	10	-
Occupation Not Reported	35	16	4	11	30	33	-	-
Total	411	256	102	82	435	261	85	30
1970[1]								
Professional, Technicians and Managers	22	28	20	19	34	26	-	-
Sales	16	15	-	9	6	28	-	6
Clerical and Kindred	4	62	-	38	25	68	-	-
Crafts and Foremen	99	-	57	-	88	-	12	-
Operatives (Including Transportation)	73	446	10	89	106	343	5	53
Laborers (Excluding Farm)	69	-	9	-	89	-	5	-
Farm Workers	10	-	11	5	7	5	10	-
Service (Excluding Private Household)	24	105	9	12	16	86	5	7
Private Household	-	-	-	-	-	21	-	5
Other Blue Collar Workers	-	16	-	28	-	4	-	-
Total	321	690	116	200	371	586	37	71

Source: U.S. Census of Population

[1] Includes persons who last worked more than 10 years ago, not shown separately.

Appendix Table 4-10
AVAILABLE LABOR BY OCCUPATION FOR DES MOINES COUNTY--AUGUST, 1973

Occupational Group	Percent of Supply
Clerical and Sales	23.1
Miscellaneous	22.2
Service	17.7
Benchwork	11.0
Structural Workers	10.3
Agriculture	6.3
Professional, Technical, Managerial	4.3
Machine Trades	4.0
Processing	1.3

Occupations with supply of 25 or more as of August 31, 1973 were the following:

Secretary
Clerk, General Office
Cashier-Checker
Waitress
Porter
Farmhand
Shell Assembler
Packager Hand
Material Handler

Source: Iowa Employment Security Commission.

Appendix Table 4-11

VALUE ADDED AND EMPLOYEE PRODUCTIVITY FOR MANUFACTURING IN SOUTHEAST IOWA, 1958-1967

	1958				1963				1967			
	Number of Establishments	Total Employment	Total Value Added[1]	Employee Productivity[2]	Number of Establishments	Total Employment	Total Value Added[1]	Employee Productivity[2]	Number of Establishments	Total Employment	Total Value Added[1]	Employee Productivity[2]
Des Moines County	77	6,430	$ 56.479	$ 8,784	83	8,314	$ 100.354	$12,070	76	11,100	$ 189.1	$17,036
Henry County	16	231	1.719	7,442	17	250	1.765	7,060	18	500	6.1	12,200
Lee County	60	4,974	58.211	11,703	62	6,211	97.832	15,751	59	6,600	99.0	15,000
Louisa County	13	81	0.361	4,457	9	133	D	-	14	D	D	-
Region (excluding Louisa County)	153	11,635	116.409	10,005	162	14,775	199.951	13,533	153	18,200	294.2	16,165
Iowa	3,567	166,126	1,684.269	10,139	3,496	178,199	2,287.0	12,834	3,388	210,100	3,250.9	15,473

Source: Census of Business.

[1] In millions of dollars.

[2] Value added per employee.

D: Withheld to avoid disclosing figures for individual companies.

Appendix Table 5-1/
NUMBER OF FARMS BY SALES, 1964-1969

	Sales of $40,000 and Over	Sales of $20,000-39,999	Sales of $10,000-19,999	Sales of $5,000-9,999	Sales of $2,500-4,999
Des Moines County					
1964	78	195	265	229	122
1969	142	213	179	173	108
Percent Change	+ 82	+ 09	- 32	- 24	- 11
Henry County					
1964	86	209	299	283	180
1969	162	244	238	231	123
Percent Change	+ 88	+ 16	- 20	- 18	- 31
Lee County					
1964	60	182	282	275	214
1969	146	204	240	213	189
Percent Change	+143	+ 12	- 14	- 22	- 11
Louisa County					
1964	67	199	275	209	89
1969	136	235	189	133	65
Percent Change	+102	+ 18	- 31	- 36	- 26
Region					
1964	291	785	1,121	996	605
1969	586	896	846	750	485
Percent Change	+101	+ 14	- 24	- 24	- 19
Iowa					
1964	11,150	29,073	46,287	31,546	15,390
1969	23,833	34,860	31,978	20,543	12,281
Percent Change	+113	+ 19	- 30	- 34	- 20

Source: U. S. Census of Agriculture

Appendix Table 5-2
COMPARISON OF MANUFACTURING EARNINGS--1967, 1972

	1967			1972			
	Employers	Payroll (In Millions)	Employee Earnings	Employers	Payroll (In Millions)	Employee Earnings	Percent Change 1967-1972
Iowa	208,000	1,320.3	$6,347	208,609	$1,872.1	$8,974	41%
Des Moines County	9,100	50.9	5,593	9,195	75.6	8,223	47%
Henry County	400	1.5	3,750	669	4.6	6,923	84%
Lee County	5,000	28.8	5,760	5,731	49.2	8,595	49%
Louisa County	D	-	-	358	3.1	8,860	-
Region	14,500	81.2	$5,600	15,953	132.5	$8,305	48%

Source: Census of Manufacturing
County Business Patterns
D: Figures withheld to avoid disclosure of operations of individual reporting units.

Appendix Table 5-3
TAXABLE RETAIL SALES BY COUNTY, CITY, AND REGION--FISCAL 1968-1972[1]

	Fiscal 1968	Fiscal 1969	Fiscal 1970	Fiscal 1971	Fiscal 1972
Des Moines County	$106,637,094	$109,480,694	$107,994,209	$113,620,025	$123,019,512
Burlington	94,108,387	96,337,757	97,239,489	101,547,629	108,682,766
Mediapolis	3,515,856	3,333,176	3,184,877	3,338,221	3,744,631
West Burlington	3,196,604	4,726,780	2,914,697	3,713,786	4,649,980
Danville	1,632,917	1,338,615	1,437,633	1,461,744	1,693,723
Under 500	149,736	153,465	140,188	116,776	168,419
Non-permit	480,177	318,819	242,152	231,762	146,643
Rural	3,553,417	3,272,082	2,835,173	3,210,107	3,933,350
Henry County	32,759,461	32,925,033	33,521,686	34,942,983	39,474,292
Mount Pleasant	21,164,670	21,593,285	22,274,212	23,269,069	24,842,676
New London	3,146,834	2,976,613	2,929,490	2,869,385	3,909,026
Wayland	1,649,280	1,596,227	1,368,498	1,353,159	1,554,432
Winfield	2,985,065	2,837,979	3,239,565	3,412,589	3,973,862
Under 500	1,484,621	1,420,222	1,432,321	1,520,893	1,594,827
Non-permit	204,948	125,717	299,694	360,153	384,464
Rural	2,150,191	2,374,990	1,977,906	2,157,735	3,215,005
Lee County	80,405,350	83,395,760	84,485,842	89,376,485	94,926,591
Fort Madison	29,412,458	28,947,037	29,805,639	31,519,066	34,188,234
Keokuk	37,598,791	41,155,895	41,375,797	43,880,525	44,161,093
Donnellson	2,307,315	2,471,342	2,825,368	3,162,330	3,742,617
Montrose	597,441	572,900	486,609	645,961	711,676
West Point	3,013,887	2,707,642	2,680,216	2,423,636	2,438,181
Under 500	790,492	708,809	717,472	808,293	1,142,470
Non-permit	342,979	327,880	391,991	411,200	326,056
Rural	6,341,987	6,504,255	6,202,750	6,525,474	8,216,264

Source: State of Iowa, Department of Revenue, Annual Statistical Reports.

[1]Taxable retail sales figures are unadjusted for the consumer price index.

Appendix Table 5-3
TAXABLE RETAIL SALES BY COUNTY, CITY, AND REGION--FISCAL 1968-1972[1] (Cont'd)

	Fiscal 1968	Fiscal 1969	Fiscal 1970	Fiscal 1971	Fiscal 1972
Louisa County	$ 14,044,486	$ 14,298,303	$ 14,309,154	$ 14,351,049	$ 16,400,407
Columbus Junction	4,612,874	5,014,453	5,105,412	5,009,620	5,496,176
Wapello	4,910,349	5,059,311	4,973,521	5,167,432	5,467,716
Morning Sun	1,361,911	1,362,789	1,572,411	1,707,888	2,658,065
Under 500	1,360,417	1,219,220	1,267,996	1,350,631	1,369,937
Non-permit	482,619	279,597	81,133	85,591	82,965
Rural	1,316,316	1,362,933	1,308,681	1,029,887	1,325,548
Region	233,846,391	240,099,790	240,310,891	252,290,542	273,820,802

Source: State of Iowa, Department of Revenue, Annual Statistical Reports.

[1] Taxable retail sales figures are unadjusted for the consumer price index.

Appendix Table 5-4
COMMERCIAL BANKING IN REGION (THOUSANDS OF DOLLARS), 1971-1974

	Des Moines County			Henry County			Lee County			Louisa County			Region		
	1971	1973	Percent Change	1971	1973	Percent Change	1971	1973	Percent Change	1971	1973	Percent Change	1971	1973	Percent Change
Deposits	109,418	135,851	24.2	41,813	57,772	38.2	101,991	134,920	32.3	30,253	41,297	36.5	283,475,	369,840	30.4
Loans and Discounts	55,227	70,387	27.5	22,305	29,706	33.2	63,113	79,166	25.4	19,111	26,197	37.1	159,756	205,456	28.6
Cash Resources	13,525	17,753	31.3	5,041	6,476	28.5	10,706	11,869	10.9	2,961	3,558	20.2	32,233	39,656	23.0
Government Bonds	27,797	22,579	-18.8	11,885	11,885	1.5	19,983	22,813	14.2	7,820	6,932	-11.4	67,312	64,209	-04.
Loan/Deposit Ratio	0.505	0.518	2.6	0.533	0.514	- 3.6	0.619	0.587	- 5.2	0.632	0.634	0.3	0.563	0.555	-01.

Appendix Table 5-5
CONSTRUCTION VALUE PER YEAR FOR COMMERCIAL BUILDINGS BY COUNTY AND REGION, 1966-1971

	1966	1967	1968	1969	1970	1971
Des Moines County						
Actual Dollars	$3,843,223	$ 427,151	$3,014,283	$ 701,471	$ 1,798,070	$2,868,077
Constant 1967 Dollars	3,953,933	427,151	2,892,786	633,097	1,512,254	2,307,383
Henry County						
Actual Dollars	0	2,328,832	215,366	0	83,697	36,498
Constant 1967 Dollars	0	2,328,832	206,685	0	70,393	29,363
Lee County						
Actual Dollars	416,555	603,640	1,731,630	383,311	15,193,922	0
Constant 1967 Dollars	428,555	603,640	1,661,833	345,949	12,778,740	0
Louisa County						
Actual Dollars	92,386	0	0	320,956	0	389,954
Constant 1967 Dollars	95,047	0	0	289,671	0	313,720
Region						
Actual Dollars	4,352,164	3,359,623	4,961,279	1,405,738	17,075,689	3,294,529
Constant 1967 Dollars	4,477,535	3,359,623	4,761,304	1,268,717	14,361,386	2,650,466

Source: Master Builders of Iowa.

Appendix Table 5-6
COMPARATIVE HOUSING CHARACTERISTICS, 1970

Housing	Des Moines	Henry	Lee	Louisa	Burlington	Iowa
Total year-round Units	16,733	6,391	14,826	3,808	11,989	954,975
Median number of rooms	5.0	5.5	5.1	5.5	4.9	5.3
In one unit structures	73.8%	82.5%	76.9%	89.4%	70.8%	81.7%
In structures built in 1960 or later	16.0%	18.3%	13.6%	16.3%	10.7%	16.9%
In structures built prior to 1950	73.0%	72.9%	75.0%	76.9%	79.3%	69.8%
Vacancy Rate						
Home-owner	1.4%	1.7%	1.6%	.8%	1.4%	1.2%
Rental	12.0%	6.4%	8.7%	7.4%	13.4%	7.5%
Occupied Housing Units						
Total	15,693	5,917	13,953	3,456	11,177	896,311
Average persons per unit	2.9	3.0	3.0	3.0	2.9	3.2
Owner-occupied	72.7%	74.1%	75.1%	76.4%	69.9%	71.7%
Median value, owner occupied, single family	$14,055	$12,635	$12,106	$10,576	$13,683	$14,025
Median gross rent, renter-occupied	$ 100	$ 90	$ 88	$ 94	$ 98	$ 99
Lacking some or all plumbing facilities	5.4%	8.0%	6.1%	6.2%	5.5%	5.2%
With 1.01 or more persons per room	5.3%	3.9%	6.2%	6.0%	5.2%	5.8%
With all plumbing facilities	92.6%	93.0%	87.8%	77.0%	92.7%	93.6%
Moved into unit during 1965-1970	45.9%	46.6%	43.4%	40.3%	46.1%	44.3%
With air conditioning	40.9%	38.7%	45.6%	36.6%	41.9%	38.5%
With home food freezer	28.3%	50.2%	37.9%	55.1%	20.9%	42.6%
With telephone available	92.2%	93.7%	89.7%	92.5%	91.8%	93.5%
With one or more automobiles	86.8%	88.9%	86.6%	89.6%	84.1%	88.0%

Appendix Table 5-6
COMPARATIVE HOUSING CHARACTERISTICS, 1970 (Cont'd.)

Housing	Des Moines	Henry	Lee	Louisa	Burlington	Iowa
Negro Occupied Units						
Total	214	B	234	B	214	8,861
Owner-occupied	54.7%	B	65.4%	B	54.7%	55.4%
Lacking some or all plumbing facilities	23.8%	B	13.7%	B	23.8%	8.0%
With 1.01 or more persons per room	19.6%	B	16.2%	B	19.6%	14.7%
New Private Housing Units						
Annual average, 1965-1970	NA	NA	NA	NA	87	11,827
In one-unit structures	NA	NA	NA	NA	78.2%	63.9%
In structures with 5 or more units	NA	NA	NA	NA	16.1%	30.1%
Permit Valuation	NA	NA	NA	NA	$1,341,000	$165,278,000

Source: U.S. Census of Housing.

NA: Not available.

B: Data not shown for less than 400 population.

Appendix Table 5-7
OCCUPATION BY SIC CLASSIFICATION BY COUNTY--1962, 1972: DES MOINES COUNTY

SIC Code	Industry	Number of Employees Mid-March Pay Period 1962	1972	Employment Change Number	Percent
	Agricultural Services, Forestry, Fisheries	19	16	- 3	-15.8
	Mining	117	D		
14	Nonmetallic Minerals, Except Fuels	117	NA		
	Contract Construction	435	496	61	14.0
15	General Building Contractors	148	229	81	54.7
17	Special Trade Contractors	266	236	- 30	-11.3
	Manufacturing	7,505	9,195	1,690	22.5
19	Ordinance and Accessories	D	D		
20	Food and Kindred Products	508	371	-137	-27.0
24	Lumber and Wood Products	NA	D		
25	Furniture and Fixtures	559	D		
27	Printing and Publishing	197	326	129	65.5
28	Chemicals and Allied Products	131	224	93	71.0
32	Stone, Clay, and Glass Products	148	148	0	0.0
33	Primary Metal Industries	D	NA		
34	Fabricated Metal Products	104	D		
35	Machinery, Except Electrical	D	D		
36	Electrical Equipment and Supplies	2,130	2,042	- 88	- 4.1
	Transportation and Other Public Utilities	672	636	- 36	- 5.4
42	Trucking and Warehousing	382	323	- 59	-15.4
48	Communication	154	153	- 1	- 0.6
	Wholesale Trade	772	756	- 16	- 2.1
	Retail Trade	2,753	3,056	303	11.0
52	Building Materials and Farm Equipment	127	146	19	15.0
53	General Merchandise	811	689	-122	-15.0
54	Food Stores	398	450	52	13.1
55	Automotive Dealers and Service Stations	340	429	89	26.2
56	Apparel and Accessory Stores	152	D		

Source: County Business Patterns.

D: Denotes figure withheld to avoid disclosure of operations of individual reporting units.
NA: Not listed.

Appendix Table 5-7
OCCUPATION BY SIC CLASSIFICATION BY COUNTY--1962, 1972: DES MOINES COUNTY (Cont'd.)

SIC Code	Industry	Number of Employees Mid-March Pay Period 1962	1972	Employment Change Number	Percent
57	Furniture and Home Furnishings Stores	150	206	56	37.3
58	Eating and Drinking Places	564	638	74	13.1
59	Miscellaneous Retail Stores	211	247	36	17.1
	Finance, Insurance, and Real Estate	362	547	185	51.1
60	Banking	149	188	39	26.2
61	Credit Agencies Other than Banks	NA	84		
63	Insurance Carriers	24	35	11	45.8
64	Insurance Agents, Brokers, and Service	29	54	25	86.2
65	Real Estate	98	164	66	67.3
66	Combined Real Estate, Insurance, etc.	19	NA		
	Services	1,789	2,768	979	54.7
70	Hotels and Other Lodging Places	132	198	66	50.0
72	Personal Services	175	202	27	15.4
73	Miscellaneous Business Services	255	167	- 88	-34.5
75	Auto Repair, Services and Garages	33	D		
76	Miscellaneous Repair Services	39	NA		
79	Amusement and Recreation Services, NEC	77	125	48	62.3
80	Medical and Other Health Services	669	1,174	505	75.5
81	Legal Services	22	42	20	90.9
82	Educational Services	NA	94		
86	Nonprofit Membership Organizations	286	579	293	102.4
89	Miscellaneous Services	41	61	20	48.8
	Unclassified Establishments	33	D		

Source: County Business Patterns.

D: Denotes figures withheld to avoid disclosure of operations of individual reporting units.
NA: Not listed.

Appendix Table 5-7

OCCUPATION BY SIC CLASSIFICATION BY COUNTY--1962, 1972: HENRY COUNTY

SIC Code	Industry	Number of Employees Mid-March Pay Period 1962	1972	Employment Change Number	Percent
	Agricultural Services, Forestry, Fisheries	18	D		
	Mining	D	NA		
	Contract Construction	212	261	49	23.1
15	General Building Contractors	NA	63		
17	Special Trade Contractors	145	137	-8	-5.5
	Manufacturing	205	699	494	241.0
34	Fabricated Metal Products	NA	D		
37	Transportation Equipment	NA	D		
	Transportation and Other Public Utilities	180	177	-3	-1.7
42	Trucking and Warehousing	29	NA		
48	Communication	D	NA		
	Wholesale Trade	107	110	3	2.8
	Retail Trade	718	981	263	36.6
52	Building Materials and Farm Equipment	121	141	20	16.5
53	General Merchandise	51	88	37	72.5
54	Food Stores	115	158	43	37.4
55	Automotive Dealers and Service Stations	158	170	12	7.6
58	Eating and Drinking Places	124	195	51	57.3
59	Miscellaneous Retail Stores	78	155	77	98.7
	Finance, Insurance, and Real Estate	102	142	40	39.2
64	Insurance Agents, Brokers, and Service	NA	23		
	Services	451	851	400	88.7
72	Personal Services	41	45	4	9.8
80	Medical and Other Health Services	101	155	54	53.5
81	Legal Services	NA	24		
82	Educational Services	D	D		
86	Nonprofit Membership Organizations	86	86	0	0.0
	Unclassified Establishments	D	D		

Source: County Business Patterns.

D: Denotes figure withheld to avoid disclosure of operations of individual reporting units.
NA: Not listed.

Appendix Table 5-7
OCCUPATION BY SIC CLASSIFICATION BY COUNTY--1962, 1972: LEE COUNTY

SIC Code	Industry	Number of Employees Mid-March Pay Period 1962	1972	Employment Change Number	Percent
	Agricultural Services, Forestry, Fisheries	4	D		
	Mining	D	D		
13	Oil and Gas Extraction	NA	D		
	Contract Construction	334	549	215	64.4
15	General Building Contractors	128	253	125	97.7
17	Special Trade Contractors	160	261	101	63.1
	Manufacturing	5,429	5,731	302	5.6
20	Food and Kindred Products	814	807	- 7	- 0.9
26	Paper and Allied Products	D	438		
27	Printing and Publishing	106	103	- 3	- 2.8
28	Chemicals and Allied Products	496	927	431	86.9
30	Rubber and Plastic Products, NEC	D	D		
33	Primary Metal Industries	D	815		
34	Fabricated Metal Products	144	D		
35	Machinery, Except Electrical	171	158	- 13	- 7.6
37	Transportation Equipment	NA	D		
39	Miscellaneous Manufacturing	D	D		
	Transportation and Other Public Utilities	617	621	4	0.6
42	Trucking and Warehousing	82	218	136	165.9
48	Communication	126	118	- 8	- 6.3
49	Electric, Gas and Sanitary Service	366	227	-139	-38.0
	Wholesale Trade	216	486	270	125.0
	Retail Trade	1,838	2,145	307	16.7
52	Building Materials and Farm Equipment	184	168	- 16	- 8.7
53	General Merchandise	307	417	110	35.8
54	Food Stores	291	359	68	23.4
55	Automotive Dealers and Service Stations	305	440	135	44.3

Source: County Business Patterns

D: Denotes figures withheld to avoid disclosure of operations of individual reporting units.
NA: Not listed.

Appendix Table 5-7
OCCUPATION BY SIC CLASSIFICATION BY COUNTY--1962. 1972: LEE COUNTY (Cont'd.)

SIC Code	Industry	Number of Employees Mid-March Pay Period 1962	1972	Employment Change Number	Percent
56	Apparel and Accessory Stores	144	115	- 29	-20.1
57	Furniture and Home Furnishings Stores	82	75	- 7	- 8.5
58	Eating and Drinking Places	329	309	- 30	- 6.1
59	Miscellaneous Retail Stores	196	262	66	33.7
	Finance, Insurance, and Real Estate	263	387	124	47.1
60	Banking	133	204	71	53.4
61	Credit Agencies Other than Banks	41	47	6	14.6
64	Insurance Agents, Brokers and Services	32	48	16	50.0
65	Real Estate	22	56	34	154.5
	Services	1,285	1,959	674	52.5
70	Hotels and Other Lodging Places	103	217	114	110.7
72	Personal Service	167	188	21	12.6
73	Miscellaneous Business Services	39	85	46	117.9
75	Auto Repair, Services and Garage	24	34	10	41.7
76	Miscellaneous Repair Services	NA	27		
79	Amusement and Recreation Services, NEC	67	NA		
80	Medical and Other Health Services	615	932	317	51.5
81	Legal Services	31	42	11	35.5
82	Educational Services	NA	150		
86	Nonprofit Membership Organizations	170	182	12	7.1
89	Miscellaneous Services	NA	37		
	Unclassified Establishments	D	D		

Source: County Business Patterns.

D: Denotes figures withheld to avoid disclosure of operations of individual reporting units.
NA: Not listed.

Appendix Table 5-7
OCCUPATION BY SIC CLASSIFICATION BY COUNTY--1962, 1972: LOUISA COUNTY

SIC Code	Industry	Number of Employees Mid-March Pay Period 1962	1972	Employment Change Number	Percent
	Agricultural Services, Forestry, Fisheries	D	D		
	Mining	D	D		
	Contract Construction	36	56	20	55.6
17	Special Trade Contractors	NA	38		
	Manufacturing	57	358	301	528.1
20	Food and Kindred Products	NA	D		
	Transportation and Other Public Utilities	54	79	25	46.3
	Wholesale Trade	81	117	36	44.4
	Retail Trade	315	439	124	39.4
52	Building Materials and Farm Equipment	45	73	28	62.2
54	Food Stores	54	NA		
55	Automotive Dealers and Service Stations	87	98	11	12.6
58	Eating and Drinking Places	59	125	66	111.9
59	Miscellaneous Retail Stores	34	47	13	38.2
	Finance, Insurance and Real Estate	37	65	28	75.7
	Services	63	154	91	144.4
	Unclassified Establishments	7	D		

Source: County Business Patterns.

D: Denotes figures withheld to avoid disclosure of operations of individual reporting units.
NA: Not listed.

Appendix Table 6-1
VALUE OF PERMITS ISSUED FOR NEW AND REMODELED DWELLINGS BY CITY, 1965-1971

	(Thousands of Dollars)						
	1965	1966	1967	1968	1969	1970	1971
Burlington							
Actual Dollars	$1,455	$2,252	$1,264	$2,439	$2,042	$488	$1,730
Constant 1967 Dollars	1,533	2,317	1,264	2,341	1,843	410	1,392
Fort Madison							
Actual Dollars	199	654	873	766	706	663	NA
Constant 1967 Dollars	210	673	873	735	637	558	NA
Keokuk							
Actual Dollars	612	970	887	394	343	299	NA
Constant 1967 Dollars	645	998	887	378	310	251	NA

Source: State Department of Health; Housing Reports compiled by Environmental Engineering Service.

NA: Not available.

Appendix Table 6-2
COMPARISON OF POPULATION GROWTH TO NUMBER OF HOUSEHOLDS FOR CITIES AND COUNTIES, 1960-1970

City or County	Population			Year Round Housing Units		
	1960	1970	Percent Change	1960	1970	Percent Change
Des Moines County	44,605	46,982	5.3	14,920	16,733	12.2
Henry County	18,187	18,114	-0.4	6,029	6,391	6.0
Lee County	44,207	42,996	-2.7	14,215	14,826	4.3
Louisa County	10,290	10,682	3.8	3,460	3,808	10.1
Burlington	32,430	32,366	-0.2	11,223	11,979	6.7
Ft. Madison	15,247	13,996	-8.2	4,909	4,998	1.8
Keokuk	16,316	14,631	-10.3	5,534	5,309	-4.1
Mt. Pleasant	7,339	7,007	-4.5	2,242	2,396	0.9

Sources: U.S. Census of Population.

U.S. Census of Housing.

Appendix Table 6-3
HOUSING UNIT STARTS, HOMES AND APARTMENTS--1967-1973

	1967	1968	1969	1970	1971	1972	1973
Burlington	57	133	65	56	107	69	34
West Burlington	33	12	7	23	11	2	1
Fort Madison	51	31	25	21	19	29	120
Keokuk	28	17	18	10	176	9	98
Mount Pleasant	33	26	23	45	33	28	14
Other Selected Cities[1]	NA	NA	NA	31	31	63	54

[1] Selected cities include: Danville, Mediapolis, Montrose, New London, Wapello, and West Point.

NA = Not available.

Appendix Table 7-1
DIRECT AND INDIRECT IMPACTS OF AEC TERMINATION

Direct Loss Item	Indirect Local Payroll Loss	Indirect Regional Earnings Loss	Indirect Job Equivalent	Induced Regional Earnings Loss
1.1 million-- Local Purchase	$ 49,900	$ 64,370 (1)	7	-
2.3 million	579,600	747,680 (1)	80	-
$1,079,000-- Lost Salaries	-	731,500	-	-
$812,000(1)-- Loss of Indirect Earnings from Procurement and Construction.	-	-	48	$550,500
Total:		$731,500	135	$550,500

(1) $63,370 reduced earnings from reduced procurement plus $747,680 lost earnings from reduced construction equals $812,000 or about 87 jobs. If the 87 persons seek employment out of the region, it will induce a further loss of $550,500, for a grand total earnings loss of $1,282,000 approximating 135 jobs lost by virtue of indirect or induced effects of the closure.

Appendix Table 7-2
ADJUSTED GROSS INCOME AND AVERAGE REPORTING UNIT, INCOME BY COUNTY--FISCAL 1969-1972

County	Fiscal 1969 AGI ($000)	Fiscal 1969 Average Unit	Fiscal 1970 AGI ($000)	Fiscal 1970 Average Unit	Fiscal 1971 AGI ($000)	Fiscal 1971 Average Unit	Fiscal 1972 AGI ($000)	Fiscal 1972 Average Unit
Des Moines	$ 137,720	$6,304	$ 138,576	$6,650	$ 140,929	$6,876	$ 156,573	$7,413
Adjusted(1)		5,741		5,718		5,669		5,916
Henry	46,717	5,715	46,159	5,876	47,013	6,011	54,662	6,665
Adjusted		5,205		5,052		4,955		5,319
Lee	113,293	6,190	111,533	6,430	114,215	6,549	128,374	7,067
Adjusted		5,638		5,529		5,399		5,640
Louisa	25,947	5,740	26,541	5,931	27,315	5,964	33,757	6,980
Adjusted		5,228		5,100		4,917		5,571
State of Iowa	$7,517,519	$6,162	$7,719,807	$6,396	$8,088,589	$6,619	$9,294,120	$7,284
Adjusted		5,612		5,500		5,457		5,813

Source: State of Iowa, Department of Revenue.

(1) Adjusted to constant 1967 dollars as reported by the U.S. Bureau of Labor Statistics.

Appendix Table 7-3

ADJUSTED TAXABLE RETAIL SALES BY COUNTY, CITY, AND REGION--FISCAL 1968-1972

	Fiscal 1968	Fiscal 1969	Fiscal 1970	Fiscal 1971	Fiscal 1972
Des Moines County	$ 99,660,836	$ 96,842,719	$ 90,904,216	$ 91,407,904	$ 95,216,341
Burlington	87,951,763	85,216,945	81,851,421	81,695,599	84,119,788
Mediapolis	3,285,847	2,948,409	2,680,873	2,685,616	3,599,056
West Burlington	2,987,480	4,181,141	2,453,449	2,987,760	3,599,056
Danville	1,570,112	1,184,091	1,210,129	1,175,981	1,310,931
Under 500	139,940	135,750	118,003	93,947	130,355
Non-permit	448,764	282,016	203,832	168,454	113,501
Rural	3,320,950	2,894,367	2,386,509	2,582,548	3,044,388
Henry County	30,616,318	29,124,310	28,216,907	28,111,812	30,552,857
Mount Pleasant	19,780,065	19,100,650	18,749,336	18,720,087	19,228,077
New London	2,940, 66	2,633,006	2,308,435	2,308,435	3,025,562
Wayland	1,541,383	1,411,966	1,151,934	1,088,623	1,203,120
Winfield	2,789,780	2,510,375	2,726,906	2,745,446	3,075,744
Under 500	1,387,496	1,256,278	1,205,657	1,223,566	1,234,386
Non-permit	191,540	111,205	252,268	289,745	297,573
Rural	2,009,524	2,100,831	1,664,904	1,735,909	2,488,394
Lee County	75,145,186	73,768,916	71,116,028	71,903,849	73,472,593
Fort Madison	27,488,278	25,605,517	25,088,921	25,357,253	26,461,481
Keokuk	35,139,057	36,405,037	34,828,111	35,302,111	34,180,412
Donnellson	2,156,369	2,186,061	2,378,256	2,544,111	2,896,762
Montrose	558,356	506,767	409,604	519,679	550,833
West Point	2,816,717	2,395,084	2,256,074	1,949,828	1,887,137
Under 500	738,778	626,987	603,933	650,276	884,265
Non-permit	320,541	290,031	329,959	330,813	252,365
Rural	5,927,091	5,753,432	5,221,170	5,249,778	6,359,337

Source: State of Iowa, Department of Revenue, Annual Statistical Reports.

Appendix Table 7-3
ADJUSTED TAXABLE RETAIL SALES BY COUNTY, CITY, AND REGION--FISCAL 1968-1972 (Cont'd)

	Fiscal 1968	Fiscal 1969	Fiscal 1970	Fiscal 1971	Fiscal 1972
Louisa County	$ 13,125,687	$ 12,647,769	$ 12,044,742	$ 11,545,493	$ 12,693,816
Columbus Junction	4,311,097	4,435,606	4,297,485	4,030,265	4,254,006
Wapello	4,589,111	4,472,286	4,186,465	4,157,226	4,231,978
Morning Sun	1,272,814	1,205,474	1,323,578	1,374,005	2,057,326
Under 500	1,271,418	1,078,478	1,067,337	1,086,590	1,060,323
Non-permit	451,046	247,322	68,294	66,746	64,214
Rural	1,230,202	1,205,602	1,101,583	1,066,410	1,025,966
Region	218,548,029	212,383,715	202,281,895	202,969,060	211,935,605
Deflator Factor(1)	107.00	113.05	118.80	124.30	129.20

Source: State of Iowa, Department of Revenue, Annual Statistical Reports.

(1)The deflator factor used is the average of the Consumer Price Index for all items for the calendar years bracketing the fiscal year.

Appendix Table 7-4
ESTIMATED RETAIL SALES BY COUNTY, REGION AND STATE (THOUSANDS OF DOLLARS)

	1960	1965	1968	1969	1970	1971	1972	1973
Des Moines County								
Actual Dollars	$ 59,776	$ 72,335	$ 87,827	$ 97,777	$ 91,783	$ 102,023	$ 110,471	$ 112,504
Henry County								
Actual Dollars	23,122	33,379	43,240	35,456	38,186	41,829	48,443	46,041
Lee County								
Actual Dollars	52,321	65,349	79,075	74,647	72,866	90,644	98,294	95,473
Louisa County								
Actual Dollars	11,457	16,711	21,887	20,839	24,915	28,111	29,658	30,640
Region								
Actual Dollars	146,676	187,774	188,832	228,719	227,750	262,607	286,866	284,658
Constant 1967 Dollars	165,362	198,703	181,221	208,305	195,830	216,494	228,943	213,868
Iowa								
Actual Dollars	3,625,524	4,221,702	5,124,176	5,435,410	5,681,257	6,348,959	6,858,337	6,809,712
Constant 1967 Dollars	4,087,400	4,467,410	4,917,635	4,950,282	4,885,002	5,234,096	5,473,533	5,116,237

Source: Sales Management, Inc., Sales Management, The Marketing Magazine.

Appendix Table 8-1

PUPIL/TEACHER RATIOS, ASSESSED VALUATION, AND PER PUPIL EXPENDITURES, 1972-73

County and School	Number of Pupils	Number of Teachers	Pupil/ Teacher Ratio	Assessed Valuation Per Child In Average Daily Membership	General Fund Expenditure Per Pupil Average Daily Membership
Lee					
Central Lee	1,257	65.4	19.2	13,068	922.28
Fort Madison	3,831	191.9	19.9	16,115	984,52
Keokuk	3,472	177.6	19.5	10,290	1,045.70
Louisa					
Columbus	1,005	49.5	20.3	14,313	952.40
Louisa-Muscatine	1,026	48.6	21.1	12,860	828.34
Morning Sun	324	19.5	16.6	12,459	1,018.32
Wapello	986	52.9	18.6	14,116	1,076.40
Des Moines					
Burlington	7,364	357.0	20.6	9,587	992.95
Danville	562	32.0	17.5	12,919	995.44
Mediapolis	1,259	64.0	19.6	15,775	900.00
Burlington, West	758	41.5	18.2	12,938	888.56
Henry					
Mount Pleasant	2,278	115.3	19.7	11,924	853.84
New London	689	36.7	18.7	9,329	956.64
Waco	764	42.2	18.1	14,137	1,170.64
Winfield-Mt. Union	479	32.8	14.6	20,920	1,230.34
Iowa					
1973-74	639,800	30,159	21.2	12,413	1,059.00
United States					
1973-74	45,486,292	2,124,150	21.4	NA	1,048.00

NEA, Ranking of States for 1973-74.

Appendix Table 8-2
BONDED INDEBTEDNESS BY CITY, 1974

City	City Bonded Indebtedness	School Bonded Indebtedness	Combined Bonded Indebtedness	Bonded Indebtedness Per Capita[1]
Burlington	$1,885,000	$3,476,000	$5,361,000	$165.64
Fort Madison	$2,215,000	$ 240,000	$2,455,000	$175.41
Keokuk	$1,744,000	$ 200,000	$1,944,000	$132.87
Mount Pleasant	$1,321,000	$ 519,000	$1,840,000	$262.59
Wapello	$ 183,000	$ 238,000	$ 421,000	$224.77

Source: Iowa Development Commission.

[1]Based on 1970 Census population data.

Appendix Table 8-3

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS
LABOR DEMAND AND SUPPLY SUMMARY 1/

State Iowa — Fiscal Year Ending June 30, 1974

OE Code	Instructional Program	Current Employment	Projected Expansion and Replacement Needs		Projected Labor Supply: Vocational Education Output 2/		Projected Labor Supply: Other Sectors Output 3/	
			1974	1978	1974	1978	1974	1978
01.000	TOTAL AGRICULTURE OCCUPATIONS	339,216	9,320	9,711	1,788	1,950		
01.0100	Agricultural Production	135,678	9,820	2,451	1,010	800		
01.0200	Agricultural Supplies/Service	196,783	5,850	6,550	584	900		
01.0301	Farm Equipment Mechanics	6,755	650	710	194	250		
04.0000	TOTAL DISTRIBUTIVE EDUCATION OCCUPATIONS	152,779	5,343	5,513	1,105	1,530	106	118
04.0800	Sales, Purchasing & Delivery	101,682	3,678	3,715	765	880	105	115
04.1900	Bus, Truck Drivers	35,950	838	922	158	225	1	3
04.9900	Others	15,147	827	876	320	575		
07.0000	TOTAL HEALTH OCCUPATIONS	40,178	2,953	3,339	1,911	3,750		
07.0200	Technicians, Medical & Dental	4,093	399	479	238	1,000		
07.0301	Nursing (Associate Degree)	11,730	860	928	392	700		
07.0302	Practical Nursing	5,848	567	670	990	1,200		
07.0303	Hospital Attendant	18,507	1,127	1,262	291	850		
09.0200	TOTAL HOME ECONOMICS OCCUPATIONS	27,462	1,685	1,938	205	550		
14.0000	TOTAL OFFICE OCCUPATIONS	185,851	9,915	10,932	1,115	1,870	852	901
14.0100	Bookkeeping, Accounting & Banking	44,105	2,559	2,866	115	170	127	139
14.0300	Filing, Office Machines, & General Office Clerical	89,744	3,305	3,635	656	1,000	336	357
14.0401	Telephone Operators	5,984	397	415	12	50	15	15
14.0503	Shipping & Receiving	3,002	87	93	20	75	15	14
14.0700	Stenographic, Secretarial & Related	43,016	3,567	3,923	312	575	359	376
16.0000	TOTAL TECHNICAL OCCUPATIONS	7,875	527	652	316	700	43	59
17.0000	TOTAL TRADE & INDUSTRIAL OCCUPATIONS	555,536	20,395	21,639	3,526	4,145	597	733
17.0302	Motor Vehicle Mechanics	16,064	470	505	681	550	217	277
17.0401	Aircraft Mechanic	330	9	11	90	50		
17.0600	Office Machine Mechanics	670	32	48	21	30		
17.1001	Carpentry	15,344	534	561	162	200		
17.1003	Heavy Equipment Operator	5,086	155	163	158	155		
17.1004	Bricklayer	2,605	84	90	20	25		
17.1005	Painter	5,786	217	222	12	15		
17.1007	Plumber	5,498	191	206	1	15		
17.1100	Custodial Services	22,832	1,679	1,931	34	40	60	80
17.1300	Drafting & Designing	3,832	170	197	230	200		
17.1402	Utility Service & Electrical	9,387	182	187	34	40	30	36
17.1503	Radio-TV Repairman	1,875	35	36	34	40		
17.1900	Graphic Arts Occupations	4,868	82	78	84	75	5	12
17.2302	Metal Work - Maching	8,789	246	258	284	260	40	45
17.2304	Metal Work - Fabrication	29,665	822	871	334	350	90	100
17.2802	Law Enforcement	6,702	305	335	46	100	40	42
17.2901	Quantity Food Occupations	58,927	2,422	2,664	45	200	45	60
17.9900	Trade & Industrial Occupations, Other	357,286	12,760	13,276	1,256	1,800	70	81

Table Source: Iowa State Plan for Administration of Career Education, Part II, 1974-1978

1/ Data from Iowa Employment Security Commission. Totals reflect only the sums of available data for specific occupations.
2/ Number trained through vocational education programs available for work to meet labor expansion and replacement needs.
3/ Number trained and available for work from MDTA programs, and from private schools as reported in the Vocational Education Directory.

Appendix Table 8-4

PREPARATORY CAREER EDUCATION PROGRAMS IN ELEMENTARY-SECONDARY SCHOOLS OF IOWA, FY 1973-1974(1)

School Name	School Address	Distributing and Marketing Occupations	Office and Business Occupations	Trade and Industry Occupations	Consumer and Home-making Occupations	Agribusiness and Natural Resource Occupations	Health Occupations	Personal Service	Public Service
Burlington	Burlington	X		X					
Mediapolis	Mediapolis				X	X			
Mount Pleasant	Mount Pleasant		X		X	X			
Keokuk	Keokuk	X	X	X	X				
Columbus	Columbus Junction								
Wapello	Wapello			X	X	X			

(1) Directory of Selected Iowa Career Education Offerings, State of Iowa, Department of Public Instruction, October, 1973.

Appendix Table 8-5
PHYSICIAN INFORMATION

Places	1950				1971				1971	
	Age 70 & Under				Age 70 & Under				Age 70 & Unde	
									Patient Care	
Population 1,000 or more	Patient Care	Non-Patient Care	Over Age 70	Total	Patient Care	Non-Patient Care	Over Age 70	Total	Gen. Prac.	Special
Burlington	31	0	8	39	40	0	7	47	5	35
Columbus Junction	1	0	2	3	0	0	0	0	0	0
Fort Madison	14	0	4	18	19	0	3	22	6	13
Keokuk	16	0	3	19	15	0	0	15	5	10
Mediapolis	1	0	0	1	1	0	0	1	1	0
Mt. Pleasant	6	0	4	10	8	1	0	9	4	4
New London	2	0	0	2	2	0	0	2	2	0
Wapello	2	0	1	3	1	0	1	2	1	0
West Burlington	0	0	0	0	0	0	0	0	0	0
West Point	1	0	0	1	1	0	1	2	1	0
Total	74	0	22	96	87	1	12	100	25	62
Population Less than 1,000										
Donnellson	1	0	0	1	1	0	0	1	1	0
Letts	0	0	1	1	0	0	0	0	0	0
Morning Sun	1	0	0	1	0	0	0	0	0	0
Wayland	1	0	1	2	1	0	0	1	1	0
Winfield	1	0	2	3	1	0	0	1	1	0
Yarmouth	1	0	0	1	0	0	0	0	0	0
Total	5	0	4	9	3	0	0	3	3	0
REGIONAL TOTAL	79	0	26	105	90	1	12	103	28	62
Mt. Pleasant Mental Health Institute	3	0	0	3	4	1	0	5	1	3

Appendix Table 8-6
IOWA DEVELOPMENT CORPORATION AND ORGANIZATIONS

Des Moines County

Burlington Chamber of Commerce
Contact: Roger Wagner, Manager
Address: Hotel Burlington
Burlington, Iowa 52601
Phone: (319) 752-6305

Burlington Area Development Corporation
Contact: Hugh McLaury, Manager
Address: P.O. Box 1024
3rd and Valley Street
Burlington, Iowa 52601
Phone: (319) 752-2320

Danville Development Company, Inc.
Contact: C.E. Stout
Address: 201 West Division Street
Danville, Iowa 52623
Phone: (319) 392-8862

Mediapolis Business Club
Contact: Don Hulett, Chairman
Address: Mediapolis, Iowa 52637
Phone: (319) 394-3855

West Burlington Planning and Zoning
Contact: Arthur C. Saunder, Chairman
Address: 322 Vernon Street
West Burlington, Iowa 52655
Phone: (319) 754-8198

Henry County

Mount Pleasant Chamber of Commerce
Contact: Don Meth
Address: P.O. Box 109
Mount Pleasant, Iowa 52641
Phone: (319) 385-3101

Henry County Development Corporation
Contact: E.A. Hayes
Address: P.O. Box 150
Mount Pleasant, Iowa 52641
Phone: (319) 385-2223

New London Chamber of Commerce
Contact: Donald J. Bell
Address: New London, Iowa 52645
Phone:

Industrial Committee
Contact: John Swartzendruber
Address: Businessmen's Club
Wayland, Iowa 52654
Phone: (319) 256-2577

Chamber of Commerce
Contact: Bob K. Kindell
Address: P.O. Box L
Winfield, Iowa 52659
Phone: (519) 257-6225

Appendix Table 8-6
IOWA DEVELOPMENT CORPORATION AND ORGANIZATIONS (Continued)

Lee County

Donnellson Planned Progress, Inc.
Contact: Glenn Randau, President
Address: Donnellson, Iowa 52625
Phone: (319) 835-5120

Chamber of Commerce
Contact: Michael L. Howard
Address: 835½ Avenue G
Fort Madison, Iowa 52627
Phone: (319) 372-5471

Fort Madison Industrial Development Corporation
Contact: Eddie Richards
Address: 835½ Avenue G
Fort Madison, Iowa 52627
Phone: (319) 372-5471

Keokuk Chamber of Commerce
Contact: Darrell Rodgers
Address: Eppers Hotel
Keokuk, Iowa 52632
Phone: (319) 524-5055

Keokuk Industrial Development Corporation
Contact: Dick Lofton
Address: Eppers Hotel
Keokuk, Iowa 52632
Phone: (319) 524-5055

Economic Development Committee for the City of Keokuk
Contact: Ed Thorsten
1307 Grand Hotel
Keokuk, Iowa
Phone:

Community Club
Contact: President
Address: West Point, Iowa 52656

Louisa County

Community Club
Contact: H. Lee Huston
Address: Industrial Committee
Columbus Junction,
Iowa 52738
Phone: (319) 728-2436

Wapello Chamber of Commerce
Contact: Pat Smith
Address: 227 North Main
Wapello, Iowa 52653
Phone: (319) 523-2341

Wapello Development Corporation
Contact: W.O. Weaver, Secretary Treasurer
Address: 327 North 2nd Street
Wapello, Iowa 52653
Phone: (319) 523-4221

Appendix Table 8-7

FEDERAL OUTLAYS FOR SOUTHEAST IOWA

	PRORATION CODE	FY 1973 OUTLAY
COUNTY-DES MOINES		
DEPARTMENT OF AGRICULTURE		
FEDERAL FUNDS		
CHILD BREAKFAST PROGRAM	10	$9,547
FOOD STAMP BONUS COUPONS	1	$665,871
NON-FOOD ASSISTANCE TO SCHOOLS PROGRAM	10	$626
PAYMENTS TO STATES FOR SCHOOL MILK	10	$19,007
SCHOOL LUNCH PROGRAM (CASH PAYMENTS)	10	$161,308
SPECIAL FOOD SERVICE PROGRAM FOR CHILDREN	10	$733
ADM. & OPER. EXP., FED. CROP INS. CORP	12	$5,993
COMMODITY INVENTORY OPERATIONS		$62,366
COMMODITY LOANS		$2,226,094
COOPERATIVE EXTENSION SERVICE, AGRICULTURE	15	$128,940
CROP INSURANCE INDEMNITY PAYMENTS, FCIC	12	$884
CROPLAND ADJUSTMENT PROGRAM		$7,778
CROPLAND ADJUSTMENT PROGRAM-PUBLIC ACCESS		$231
FARM OPERATING LOANS		$16,100
FEED GRAINS PRODUCTION STABILIZATION		$1,969,359
FOOD STAMP PROGRAM, FNS	10	$30,238
FOREST PROTECTION & UTILIZATION, FS	10	$709
NATIONAL WOOL ACT PAYMENTS		$7,633
RESEAL STORAGE		$47,812
RIVER BASIN SURVEYS AND INVESTIGATIONS		$631
RURAL ENVIRONMENTAL ASSISTANCE PROGRAM		$48,322
S & E, ASCS		$66,075
SOIL AND WATER CONSERVATION		$38,346
STORAGE FACILITY LOANS		$133,382
WHEAT PRODUCTION STABILIZATION		$33,708
AGENCY TOTAL - FEDERAL FUNDS		**$5,681,693**
INFLUENCE OF FEDERAL ACTIVITIES *		
DONATION OF COMMODITIES TO SCHOOLS (SEC 6)	10	($12,114)
FARM OPERATING LOANS		($79,700)
FARM OWNERSHIP LOANS		($213,030)
FOOD DISTRIBUTION TO INSTITUTIONS	10	($3,616)
FOOD DISTRIBUTION TO SCHOOLS	10	($66,225)
LOW TO MODERATE INCOME HOUSING LOANS		($323,710)
RURAL ELECTRIC LOANS	2	($354,506)
DEPARTMENT OF COMMERCE		
FEDERAL FUNDS		
U S MERCHANT MARINE ACADEMY		$18
AGENCY TOTAL - FEDERAL FUNDS		**$18**
DEPARTMENT OF DEFENSE		
FEDERAL FUNDS		
CIVIL FUNCTIONS PRIME CONTRACTS	5	$46,000
CIVILIAN PAY	15	$1,152,000
MILITARY ACTIVE DUTY PAY	15	$74,000
MILITARY PRIME CONSTRUCTION CONTRACTS	5	$583,000
MILITARY PRIME SERVICE CONTRACTS	5	$31,065,000
MILITARY PRIME SUPPLY CONTRACTS	5	$981,000
MILITARY RESERVE AND NATIONAL GUARD PAY	15	$380,000
MILITARY RETIRED PAY	12	$678,000
AGENCY TOTAL - FEDERAL FUNDS		**$34,959,000**
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE		
FEDERAL FUNDS		
AGING SPECIAL SUPPORT PROJECTS	12	$14,610
CHILD DEVELOPMENT-HEAD START		$226,271
CHILD WELFARE SERVICES	12	$3,108
CHILDHOOD LEAD BASED PAINT POISONING CONTR		$103,653
COLLEGE LIBRARY RESOURCES		$5,000
CRIPPLED CHILDRENS SERVICES	12	$10,777
DEVELOPMENTAL DISABILITIES-SPECIAL PROJECT		$20,419
DEVELOPMENTALLY DISABLED-BASIC SUPPORT		$4,066
EDUC DEPRIVED CHILD-LOCAL ED AGENCIES		$129,261
EDUCATIONAL OPPORTUNITY GRANTS		$8,794
HEALTH INSUR FOR AGED-HOSPITAL INSURANCE		$1,634,075
HEALTH INSUR FOR AGED-SUPPLEM MED INSURANC		$450,552
HIGHER ED-VETERANS-PAYMENTS TO IEH		$9,294
HIGHER EDUCATION WORK-STUDY		$34,137
LIMIT ON SALARIES & EXPENSES		$229,133
MEDICAL ASSISTANCE PROGRAM	12	$304,140
NURSING OCCUPATIONS GRANTS		$6,191
NURSING SCHOLARSHIPS		$5,792
NURSING STUDENT LOANS		$1,800
PUBLIC ASSIST-MAINTENANCE ASSIST (STATE AI		$482,441
PUBLIC ASSISTANCE-SOCIAL SERVICES	12	$138,273
PUBLIC ASSISTANCE-STATE & LOCAL TRAINING	12	$7,779
REHAB SERVICES & FACILITIES-BASIC SUPPORT	12	$94,149
SCHOOL ASSIST IN FED AFFECTED AREAS MAINT&		$224,006
SOCIAL SECURITY-DISABILITY INSURANCE		$863,677
SOCIAL SECURITY-RETIREMENT INSURANCE		$8,963,011
SOCIAL SECURITY SURVIVORS INSURANCE		$2,846,485
SCHOOL ASSIST IN FED AFFECTED AREAS-MAINT&		$57,813
SPECIAL BENEFITS FOR DISABLED COAL MINERS		$19,341
STUDENT LOAN INSURANCE FUND		$466
VOC REHAB SERV, SOC SEC DISABIL BENEFICIAR		$5,851
AGENCY TOTAL - FEDERAL FUNDS		**$16,904,365**
INFLUENCE OF FEDERAL ACTIVITIES *		
HIGHER ED ACT INSURED LOANS		($13,046)
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT		
FEDERAL FUNDS		
URBAN RENEWAL PROGRAMS		$554,075
AGENCY TOTAL - FEDERAL FUNDS		**$554,075**
INFLUENCE OF FEDERAL ACTIVITIES *		
HOME MORTGAGE INSURANCE		($400,000)
INSURANCE FOR PROPERTY IMPROVEMENT LOANS		($116,000)
DEPARTMENT OF LABOR		
FEDERAL FUNDS		
FEDERAL EMPLOYEE INJURY COMPENSATION	9	$24,624
JOB OPPORTUNITIES IN PRIVATE BUSI. SECTOR		$3,629
MDTA-INSTITUTIONAL TRAINING		$265,132
NEIGHBORHOOD YOUTH CORPS		$168,330
PLACEMENT SERVICES-ADMINISTRATION		$102,398
UNEMPLOYMENT INSURANCE		$106,678
AGENCY TOTAL - FEDERAL FUNDS		**$670,791**
DEPARTMENT OF STATE		
FEDERAL FUNDS		
S & E, DEPARTMENT OF STATE	11	$152
AGENCY TOTAL - FEDERAL FUNDS		**$152**
DEPARTMENT OF TRANSPORTATION		
FEDERAL FUNDS		
COAST GUARD MARINE, HARBOR & SHORE SVC		$15,268
FACILITIES & EQUIP A/A TRUST FUND, FAA		$32,060
HIGHWAY PLANNING AND CONSTRUCTION		$1,379,626
OPERATIONS, FAA		$168,120
AGENCY TOTAL - FEDERAL FUNDS		**$1,595,074**
TREASURY DEPARTMENT		
FEDERAL FUNDS		
ADM THE PUBLIC DEBT & SAVINGS BOND DIV.		$4,803
COMPLIANCE, INTERNAL REVENUE SERVICE	16	$64,075
FISCAL ASSISTANCE TO STATE & LOCAL GOV'TS		$777,650
INTEREST ON THE PUBLIC DEBT	18	$2,454,797
REVENUE ACCOUNTING & PROCESSING, I R S	16	$18,790
AGENCY TOTAL - FEDERAL FUNDS		**$3,320,115**
ACTION		
FEDERAL FUNDS		
RETIRED SENIOR VOLUNTEER PROGRAM		$26,511
AGENCY TOTAL - FEDERAL FUNDS		**$26,511**
ATOMIC ENERGY COMMISSION		
FEDERAL FUNDS		
OPERATIONAL PROGRAM DIRECTION		$159,831
OTHER COSTS AND CREDITS		$1,270
WEAPON ACTIVITIES		$18,442,266
AGENCY TOTAL - FEDERAL FUNDS		**$18,603,367**
CIVIL SERVICE COMMISSION		
FEDERAL FUNDS		
ANNUITIES UNDER SPECIAL ACTS, CSC	8	$39
CIVIL SERVICE RETIREMENT & DISABILITY FUND	8	$630,864
REVOLVING FUND, CIVIL SERVICE COMMISSION		$5,445
S & E, CIVIL SERVICE COMMISSION		$444
AGENCY TOTAL - FEDERAL FUNDS		**$636,792**
GENERAL SERVICES ADMINISTRATION		
FEDERAL FUNDS		
BUILDINGS MANAGEMENT FUND		$10,114
FEDERAL TELECOMMUNICATIONS FUND		$5,190
GENERAL SUPPLY FUND		$82,030
REPAIR AND IMPROVEMENT OF PUBLIC BUILDINGS		$1,607
AGENCY TOTAL - FEDERAL FUNDS		**$98,941**

Appendix Table 8-7
FEDERAL OUTLAYS FOR SOUTHEAST IOWA

	PRORATION CODE	FY 1973 OUTLAY
NATIONAL SCIENCE FOUNDATION		
FEDERAL FUNDS		
S & E, NATIONAL SCIENCE FOUNDATION		$8,211
AGENCY TOTAL - FEDERAL FUNDS		**$8,211**
OFFICE OF ECONOMIC OPPORTUNITY		
FEDERAL FUNDS		
COMMUNITY ACTION		$50,093
AGENCY TOTAL - FEDERAL FUNDS		**$50,093**
POSTAL SERVICE		
FEDERAL FUNDS		
THE POSTAL FUND		$1,778,041
AGENCY TOTAL - FEDERAL FUNDS		**$1,778,041**
RAILROAD RETIREMENT BOARD		
FEDERAL FUNDS		
SOCIAL INSURANCE PROGRAM FOR RR WORKERS	21	$1,777,201
AGENCY TOTAL - FEDERAL FUNDS		**$1,777,201**
SELECTIVE SERVICE SYSTEM		
FEDERAL FUNDS		
S & E, SELECTIVE SERVICE SYSTEM	13	$27,499
AGENCY TOTAL - FEDERAL FUNDS		**$27,499**
SMALL BUSINESS ADMINISTRATION		
FEDERAL FUNDS		
ECON. OPPORTUNITY LOANS TO SMALL BUSINESS		$30,000
AGENCY TOTAL - FEDERAL FUNDS		**$30,000**
INFLUENCE OF FEDERAL ACTIVITIES *		
SMALL BUSINESS FINANCIAL ASST PROGRAM		($181,350)
TENNESSEE VALLEY AUTHORITY		
FEDERAL FUNDS		
TENNESSEE VALLEY AUTHORITY FUND		$47,170
AGENCY TOTAL - FEDERAL FUNDS		**$47,170**
U.S. INFORMATION AGENCY		
FEDERAL FUNDS		
S & E, U S INFORMATION AGENCY	18	$1,871
AGENCY TOTAL - FEDERAL FUNDS		**$1,871**
VETERANS ADMINISTRATION		
FEDERAL FUNDS		
DEPENDENCY & INDEMNITY & DEATH COMPENSATIO	12	$129,068
SONS, DAUGHTERS, WIVES & WIDOWS EDUCATION	12	$16,567
VETERANS DEATH PENSION	12	$268,805
VETERANS DISABILITY COMPENSATION	12	$660,572
VETERANS DISABILITY PENSION	12	$427,075
VETERANS INSURANCE AND INDEMNITIES	12	$165,660
VETERANS READJUSTMENT TRAINING	12	$531,122
VETS BURIAL AWARDS & OTHER MISC BENEF PMT	12	$21,830
VETS REHAB. TRAINING FOR DISABLED VETS	12	$22,701
AGENCY TOTAL - FEDERAL FUNDS		**$2,243,400**
INFLUENCE OF FEDERAL ACTIVITIES *		
VETERANS GUARANTEED AND INSURED LOANS		($232,150)
COUNTY TOTAL - FEDERAL FUNDS		**$89,014,380**

Appendix Table 8-7 (Continued)
FEDERAL OUTLAYS FOR SOUTHEAST IOWA

	PRORATION CODE	FY 1973 OUTLAY
COUNTY-HENRY		
DEPARTMENT OF AGRICULTURE		
FEDERAL FUNDS		
FOOD STAMP BONUS COUPONS	1	$193,462
PAYMENTS TO STATES FOR SCHOOL MILK	10	$14,125
SCHOOL LUNCH PROGRAM (CASH PAYMENTS)	10	$58,708
SPECIAL FOOD SERVICE PROGRAM FOR CHILDREN	10	$3,512
ADM. & OPER. EXP. FED. CROP INS. CORP.	12	$8,240
COMMODITY INVENTORY OPERATIONS		$28,577
COMMODITY LOANS		$2,042,096
COOPERATIVE EXTENSION SERVICE, AGRICULTURE	15	$23,675
CROP INSURANCE INDEMNITY PAYMENTS, FCIC	12	$2,208
FARM OPERATING LOANS		$29,700
FEED GRAINS PRODUCTION STABILIZATION		$1,992,416
FOREST PROTECTION & UTILIZATION, FS	18	$709
NATIONAL WOOL ACT PAYMENTS		$26,534
RESEAL STORAGE		$16,433
RURAL ENVIRONMENTAL ASSISTANCE PROGRAM		$66,045
S & E, ASCS		$76,147
S & E, FARMERS HOME ADMINISTRATION		$57,822
SOIL AND WATER CONSERVATION		$26,457
STORAGE FACILITY LOANS		$226,102
WHEAT PRODUCTION STABILIZATION		$8,502
AGENCY TOTAL - FEDERAL FUNDS		**$4,901,470**
INFLUENCE OF FEDERAL ACTIVITIES *		
DONATION OF COMMODITIES TO SCHOOLS (SEC 6)	10	($3,941)
FARM OPERATING LOANS		($47,500)
FARM OWNERSHIP LOANS		($50,000)
FOOD DISTRIBUTION TO INSTITUTIONS	10	($7,972)
FOOD DISTRIBUTION TO SCHOOLS	10	($22,360)
LOW TO MODERATE INCOME HOUSING LOANS		($784,700)
NON FARM ENTERPRISE LOANS		($17,000)
RURAL ELECTRIC LOANS	2	($70,418)
SOIL AND WATER LOANS	19	($900)
DEPARTMENT OF DEFENSE		
FEDERAL FUNDS		
CIVILIAN PAY	15	$42,000
MILITARY PRIME SUPPLY CONTRACTS	5	$304,000
MILITARY RESERVE AND NATIONAL GUARD PAY	15	$261,000
MILITARY RETIRED PAY	12	$36,000
AGENCY TOTAL - FEDERAL FUNDS		**$643,000**
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE		
FEDERAL FUNDS		
AGING SPECIAL SUPPORT PROJECTS	12	$9,278
CHILD WELFARE SERVICES	12	$4,440
COLLEGE LIBRARY RESOURCES		$5,000
CRIPPLED CHILDRENS SERVICES	12	$3,804
DEVELOPMENTALLY DISABLED-BASIC SUPPORT		$2,582
EDUC DEPRIVED CHILD-LOCAL ED AGENCIES		$68,077
EDUCATIONAL OPPORTUNITY GRANTS		$31,614
HEALTH INSUR FOR AGED-HOSPITAL INSURANCE		$731,913
HEALTH INSUR FOR AGED-SUPPLEM MED INSURANC		$198,307
HIGHER EDUCATION		$254
HIGHER EDUCATION WORK-STUDY		$32,651
MEDICAL ASSISTANCE PROGRAM	12	$128,248
MENTAL HEALTH-RESEARCH GRANTS		$100,000
NATL DEFENSE STUDENT LOAN CANCELLATIONS		$2,277
NATL DEFENSE STUDENT LOANS		$73,803
NURSING OCCUPATIONS GRANTS		$8,908
NURSING RESEARCH PROJECT GRANTS		$131,072
NURSING SCHOLARSHIPS		$4,248
NURSING STUDENT LOANS		$8,887
PUBLIC ASSIST-MAINTENANCE ASSIST (STATE AI		$203,433
PUBLIC ASSISTANCE-SOCIAL SERVICES	12	$58,306
PUBLIC ASSISTANCE-STATE & LOCAL TRAINING	12	$3,280
REHAB SERVICES & FACILITIES-BASIC SUPPORT	12	$59,787
SCHOOL ASSIST IN FED AFFECTED AREAS-MAINT&		$58,491
SOCIAL SECURITY-DISABILITY INSURANCE		$363,541
SOCIAL SECURITY-RETIREMENT INSURANCE		$3,983,348
SOCIAL SECURITY-SURVIVORS INSURANCE		$1,018,346
SCHOOL ASSIST IN FED AFFECTED AREAS-MAINT&		$16,249
SPECIAL BENEFITS FOR DISABLED COAL MINERS		$19,341
VOC REHAB SERV, SOC SEC DISABIL BENEFICIAR		$3,715
AGENCY TOTAL - FEDERAL FUNDS		**$7,333,200**
INFLUENCE OF FEDERAL ACTIVITIES *		
HIGHER ED ACT INSURED LOANS		($10,019)
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT		
INFLUENCE OF FEDERAL ACTIVITIES *		
HOME MORTGAGE INSURANCE		($232,000)
INSURANCE FOR PROPERTY IMPROVEMENT LOANS		($8,000)
DEPARTMENT OF THE INTERIOR		
FEDERAL FUNDS		
OUTDOOR RECREATION ASSISTANCE		$10,240
AGENCY TOTAL - FEDERAL FUNDS		**$10,240**
DEPARTMENT OF LABOR		
FEDERAL FUNDS		
FEDERAL EMPLOYEE INJURY COMPENSATION	9	$3,357
UNEMPLOYMENT INSURANCE		$19,717
AGENCY TOTAL - FEDERAL FUNDS		**$23,074**
DEPARTMENT OF TRANSPORTATION		
FEDERAL FUNDS		
COAST GUARD MARINE, HARBOR & SHORE SVC		$6,123
HIGHWAY PLANNING AND CONSTRUCTION		$102,664
AGENCY TOTAL - FEDERAL FUNDS		**$108,787**
TREASURY DEPARTMENT		
FEDERAL FUNDS		
ADM THE PUBLIC DEBT & SAVINGS BOND DIV.		$1,102
FISCAL ASSISTANCE TO STATE & LOCAL GOV'TS		$324,714
INTEREST ON THE PUBLIC DEBT	10	$935,891
AGENCY TOTAL - FEDERAL FUNDS		**$1,261,707**
CIVIL SERVICE COMMISSION		
FEDERAL FUNDS		
ANNUITIES UNDER SPECIAL ACTS, CSC	8	$15
CIVIL SERVICE RETIREMENT & DISABILITY FUND	8	$236,574
AGENCY TOTAL - FEDERAL FUNDS		**$236,589**
GENERAL SERVICES ADMINISTRATION		
FEDERAL FUNDS		
BUILDINGS MANAGEMENT FUND		$223
AGENCY TOTAL - FEDERAL FUNDS		**$223**
NATIONAL FOUNDATION ON ARTS AND HUMANITIES		
FEDERAL FUNDS		
PAYMENTS FOR PROGRESS ON THE HUMANITIES		$2,000
AGENCY TOTAL - FEDERAL FUNDS		**$2,000**
POSTAL SERVICE		
FEDERAL FUNDS		
THE POSTAL FUND		$808,201
AGENCY TOTAL - FEDERAL FUNDS		**$808,201**
RAILROAD RETIREMENT BOARD		
FEDERAL FUNDS		
SOCIAL INSURANCE PROGRAM FOR RR WORKERS	21	$223,206
AGENCY TOTAL - FEDERAL FUNDS		**$223,206**
SMALL BUSINESS ADMINISTRATION		
FEDERAL FUNDS		
DISASTER LOANS		$5,000
AGENCY TOTAL - FEDERAL FUNDS		**$5,000**
INFLUENCE OF FEDERAL ACTIVITIES *		
SMALL BUSINESS FINANCIAL ASST. PROGRAM		($318,600)
VETERANS ADMINISTRATION		
FEDERAL FUNDS		
DEPENDENCY & INDEMNITY & DEATH COMPENSATIO	12	$44,602
SONS, DAUGHTERS, WIVES & WIDOWS EDUCATION	12	$5,725
VETERANS DEATH PENSION	12	$92,890
VETERANS DISABILITY COMPENSATION	12	$228,271
VETERANS DISABILITY PENSION	12	$147,583
VETERANS INSURANCE AND INDEMNITIES	12	$57,246
VETERANS READJUSTMENT TRAINING	12	$183,538
VETS BURIAL AWARDS & OTHER MISC BENEF PMT	12	$7,544
VETS. REHAB. TRAINING FOR DISABLED VETS.	12	$7,845
AGENCY TOTAL - FEDERAL FUNDS		**$775,244**
INFLUENCE OF FEDERAL ACTIVITIES *		
VETERANS GUARANTEED AND INSURED LOANS		($105,250)
COUNTY TOTAL - FEDERAL FUNDS		**$16,331,941**

Appendix Table 8-7 (Continued)
FEDERAL OUTLAYS FOR SOUTHEAST IOWA

	PRORATION CODE	FY 1973 OUTLAY
COUNTY-LEE		
DEPARTMENT OF AGRICULTURE		
FEDERAL FUNDS		
FOOD STAMP BONUS COUPONS	1	$739,417
NON-FOOD ASSISTANCE TO SCHOOLS PROGRAM	10	$6,200
PAYMENTS TO STATES FOR SCHOOL MILK	10	$22,530
SCHOOL LUNCH PROGRAM (CASH PAYMENTS)	10	$147,277
SPECIAL FOOD SERVICE PROGRAM FOR CHILDREN	10	$4,977
ADM. & OPER. EXP., FED. CROP INS. CORP	12	$7,192
COMMODITY INVENTORY OPERATIONS		$4,045
COMMODITY LOANS		$773,709
COOPERATIVE EXTENSION SERVICE, AGRICULTURE	15	$15,773
CROP INSURANCE INDEMNITY PAYMENTS, FCIC	12	$3,985
CROPLAND ADJUSTMENT PROGRAM-PUBLIC ACCESS		$210
FEED GRAINS PRODUCTION STABILIZATION		$1,784,985
FOREST PROTECTION & UTILIZATION, FS	18	$709
NATIONAL WOOL ACT PAYMENTS		$20,435
RESEAL STORAGE		$1,940
RURAL ENVIRONMENTAL ASSISTANCE PROGRAM		$42,878
S & E, ASCS		$62,849
SOIL AND WATER CONSERVATION		$21,709
SOIL SURVEY PROGRAM		$10,371
STORAGE FACILITY LOANS		$178,872
WATER AND WASTE DISP. SYSTEMS GRANTS		$3,000
WHEAT PRODUCTION STABILIZATION		$69,196
AGENCY TOTAL - FEDERAL FUNDS		**$3,922,259**
INFLUENCE OF FEDERAL ACTIVITIES *		
DONATION OF COMMODITIES TO SCHOOLS (SEC 6)	10	($9,892)
FARM OPERATING LOANS		($20,000)
FARM OWNERSHIP LOANS		($118,500)
FOOD DISTRIBUTION TO INSTITUTIONS	10	($65,208)
FOOD DISTRIBUTION TO SCHOOLS	10	($59,467)
LOW TO MODERATE INCOME HOUSING LOANS		($207,800)
NON-FARM ENTERPRISE LOANS		($25,900)
RURAL ELECTRIC LOANS	2	($33,258)
DEPARTMENT OF COMMERCE		
FEDERAL FUNDS		
CENSUS AND STATISTICAL REPORTS		$5,997
AGENCY TOTAL - FEDERAL FUNDS		**$5,997**
DEPARTMENT OF DEFENSE		
FEDERAL FUNDS		
CIVIL FUNCTIONS PRIME CONTRACTS	5	$11,000
CIVILIAN PAY	15	$170,000
MILITARY RESERVE AND NATIONAL GUARD PAY	15	$72,000
MILITARY RETIRED PAY	12	$84,000
AGENCY TOTAL - FEDERAL FUNDS		**$337,000**
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE		
FEDERAL FUNDS		
AGING-SPECIAL SUPPORT PROJECTS	12	$17,170
CHILD WELFARE SERVICES	12	$5,995
CRIPPLED CHILDRENS SERVICES	12	$9,509
DEVELOPMENTALLY DISABLED-BASIC SUPPORT		$4,778
EDUC DEPRIVED CHILD LOCAL ED AGENCIES		$202,399
HEALTH INSUR FOR AGED HOSPITAL INSURANCE		$1,463,017
HEALTH INSUR FOR AGED SUPPLEM MED INSURANC		$399,268
HIGHER EDUCATION		$735
MEDICAL ASSISTANCE PROGRAM	12	$471,940
PUBLIC ASSIST-MAINTENANCE ASSIST (STATE AI		$748,613
PUBLIC ASSISTANCE-SOCIAL SERVICES	12	$214,561
PUBLIC ASSISTANCE-STATE & LOCAL TRAINING	12	$12,071
REHAB SERVICES & FACILITIES-BASIC SUPPORT	12	$110,642
SCHOOL ASSIST IN FED AFFECTED AREAS-MAINT&		$57,914
SOCIAL SECURITY-DISABILITY INSURANCE		$971,313
SOCIAL SECURITY RETIREMENT INSURANCE		$7,744,190
SOCIAL SECURITY SURVIVORS INSURANCE		$2,613,699
SCHOOL ASSIST IN FED AFFECTED AREAS-MAINT&		$16,088
SPECIAL BENEFITS FOR DISABLED COAL MINERS		$12,894
STUDENT LOAN INSURANCE FUND		$1,500
VOC REHAB SERV. SOC SEC DISABIL BENEFICIAR		$6,875
AGENCY TOTAL - FEDERAL FUNDS		**$15,085,171**
INFLUENCE OF FEDERAL ACTIVITIES *		
HIGHER ED ACT INSURED LOANS		($44,183)
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT		
INFLUENCE OF FEDERAL ACTIVITIES *		
HOME MORTGAGE INSURANCE		($321,000)
INSURANCE FOR PROPERTY IMPROVEMENT LOANS		($83,000)
DEPARTMENT OF THE INTERIOR		
FEDERAL FUNDS		
OUTDOOR RECREATION ASSISTANCE		$5,000
AGENCY TOTAL - FEDERAL FUNDS		**$5,000**
DEPARTMENT OF LABOR		
FEDERAL FUNDS		
FEDERAL EMPLOYEE INJURY COMPENSATION	9	$7,834
JOB OPPORTUNITIES IN PRIVATE BUSI. SECTOR		$1,470
MDTA--INSTITUTIONAL TRAINING		$38,142
PLACEMENT SERVICES -ADMINISTRATION		$81,918
UNEMPLOYMENT INSURANCE		$48,859
AGENCY TOTAL - FEDERAL FUNDS		**$178,223**
DEPARTMENT OF TRANSPORTATION		
FEDERAL FUNDS		
COAST GUARD MARINE, HARBOR & SHORE SVC.		$150,992
HIGHWAY PLANNING AND CONSTRUCTION		$109,327
AGENCY TOTAL - FEDERAL FUNDS		**$260,319**
TREASURY DEPARTMENT		
FEDERAL FUNDS		
ADM THE PUBLIC DEBT & SAVINGS BOND DIV.		$4,144
FISCAL ASSISTANCE TO STATE & LOCAL GOV'TS.		$905,518
INTEREST ON THE PUBLIC DEBT	10	$2,255,344
AGENCY TOTAL - FEDERAL FUNDS		**$3,165,006**
CIVIL SERVICE COMMISSION		
FEDERAL FUNDS		
ANNUITIES UNDER SPECIAL ACTS, CSC	8	$36
CIVIL SERVICE RETIREMENT & DISABILITY FUND	8	$591,435
AGENCY TOTAL - FEDERAL FUNDS		**$591,471**
GENERAL SERVICES ADMINISTRATION		
FEDERAL FUNDS		
BUILDINGS MANAGEMENT FUND		$1,145
GENERAL SUPPLY FUND		$17,246
AGENCY TOTAL - FEDERAL FUNDS		**$18,391**
POSTAL SERVICE		
FEDERAL FUNDS		
THE POSTAL FUND		$1,414,351
AGENCY TOTAL - FEDERAL FUNDS		**$1,414,351**
RAILROAD RETIREMENT BOARD		
FEDERAL FUNDS		
SOCIAL INSURANCE PROGRAM FOR RR WORKERS	21	$2,124,460
AGENCY TOTAL - FEDERAL FUNDS		**$2,124,460**
SELECTIVE SERVICE SYSTEM		
FEDERAL FUNDS		
S & E, SELECTIVE SERVICE SYSTEM	13	$12,209
AGENCY TOTAL - FEDERAL FUNDS		**$12,209**
SMALL BUSINESS ADMINISTRATION		
INFLUENCE OF FEDERAL ACTIVITIES *		
ECON. OPPORTUNITY LOANS TO SMALL BUSINESS		($5,850)
SMALL BUSINESS FINANCIAL ASST. PROGRAM		($828,700)
TENNESSEE VALLEY AUTHORITY		
FEDERAL FUNDS		
TENNESSEE VALLEY AUTHORITY FUND		$189
AGENCY TOTAL - FEDERAL FUNDS		**$189**
VETERANS ADMINISTRATION		
FEDERAL FUNDS		
DEPENDENCY & INDEMNITY & DEATH COMPENSATIO	12	$112,427
SONS, DAUGHTERS, WIVES & WIDOWS EDUCATION	12	$14,431
VETERANS DEATH PENSION	12	$234,148
VETERANS DISABILITY COMPENSATION	12	$575,404
VETERANS DISABILITY PENSION	12	$372,012
VETERANS INSURANCE AND INDEMNITIES	12	$144,301
VETERANS READJUSTMENT TRAINING	12	$462,644
VETS BURIAL AWARDS & OTHER MISC BENEF PMT	12	$19,016
VETS. REHAB. TRAINING FOR DISABLED VETS.	12	$19,775
AGENCY TOTAL - FEDERAL FUNDS		**$1,954,158**
INFLUENCE OF FEDERAL ACTIVITIES *		
VETERANS GUARANTEED AND INSURED LOANS		($687,525)
COUNTY TOTAL - FEDERAL FUNDS		**$29,074,204**

Appendix Table 8-7 (Continued)
FEDERAL OUTLAYS FOR SOUTHEAST IOWA (Cont'd)

	PRORATION CODE	FY 1973 OUTLAY
COUNTY-LOUISA		
DEPARTMENT OF AGRICULTURE		
FEDERAL FUNDS		
FOOD STAMP BONUS COUPONS	1	$127,466
NON FOOD ASSISTANCE TO SCHOOLS PROGRAM	10	$1,749
PAYMENTS TO STATES FOR SCHOOL MILK	10	$5,368
SCHOOL LUNCH PROGRAM (CASH PAYMENTS)	10	$59,810
ADM & OPER EXP, FED CROP INS CORP	12	$4,045
COMMODITY INVENTORY OPERATIONS		$86,776
COMMODITY LOANS		$2,053,481
COOPERATIVE EXTENSION SERVICE, AGRICULTURE	15	$15,773
CROP INSURANCE INDEMNITY PAYMENTS, FCIC	12	$4,009
CROPLAND ADJUSTMENT PROGRAM		$5,556
FARM OPERATING LOANS		$22,000
FEED GRAINS PRODUCTION STABILIZATION		$2,099,867
FOREST PROTECTION & UTILIZATION, FS	18	$709
NATIONAL WOOL ACT PAYMENTS		$12,083
RESEAL STORAGE		$26,121
RIVER BASIN SURVEYS AND INVESTIGATIONS		$403
RURAL ENVIRONMENTAL ASSISTANCE PROGRAM		$59,508
S & E, ASCS		$62,804
SOIL AND WATER CONSERVATION		$25,182
STORAGE FACILITY LOANS		$219,191
WATER AND WASTE DISP SYSTEMS GRANTS		$123,000
WHEAT PRODUCTION STABILIZATION		$5,749
AGENCY TOTAL - FEDERAL FUNDS		**$5,020,650**
INFLUENCE OF FEDERAL ACTIVITIES *		
DONATION OF COMMODITIES TO SCHOOLS (SEC 6)	10	($4,084)
FARM OPERATING LOANS		($43,900)
FARM OWNERSHIP LOANS		($92,900)
FOOD DISTRIBUTION TO INSTITUTIONS	10	($311)
FOOD DISTRIBUTION TO SCHOOLS	10	($23,646)
LOW TO MODERATE INCOME HOUSING LOANS		($672,120)
NON FARM ENTERPRISE LOANS		($20,000)
RURAL ELECTRIC LOANS	2	($308,429)
SOIL AND WATER LOANS		($1,400)
WATER AND WASTE DISP SYSTEMS LOANS		($256,000)
DEPARTMENT OF COMMERCE		
FEDERAL FUNDS		
ECON DEV TECHNICAL ASSISTANCE		$2,500
AGENCY TOTAL - FEDERAL FUNDS		**$2,500**
DEPARTMENT OF DEFENSE		
FEDERAL FUNDS		
MILITARY RETIRED PAY	12	$30,000
AGENCY TOTAL - FEDERAL FUNDS		**$30,000**
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE		
FEDERAL FUNDS		
AGING SPECIAL SUPPORT PROJECTS	12	$5,119
CHILD WELFARE SERVICES	12	$8[illegible]
CRIPPLED CHILDRENS SERVICES	12	$3,804
DEVELOPMENTALLY DISABLED-BASIC SUPPORT		$1,425
EDUC DEPRIVED CHILD-LOCAL ED AGENCIES		$45,102
HEALTH INSUR FOR AGED HOSPITAL INSURANCE		$404,882
HEALTH INSUR FOR AGED-SUPPLEM MED INSURANC		$109,850
HIGHER EDUCATION		$384
MEDICAL ASSISTANCE PROGRAM	12	$86,897
PUBLIC ASSIST MAINTENANCE ASSIST (STATE AI		$137,840
PUBLIC ASSISTANCE-SOCIAL SERVICES	12	$39,507
PUBLIC ASSISTANCE-STATE & LOCAL TRAINING	12	$2,223
REHAB SERVICES & FACILITIES-BASIC SUPPORT	12	$32,986
SCHOOL ASSIST IN FED AFFECTED AREAS-MAINT&		$14,153
SOCIAL SECURITY-DISABILITY INSURANCE		$213,178
SOCIAL SECURITY RETIREMENT INSURANCE		$2,192,722
SOCIAL SECURITY-SURVIVORS INSURANCE		$629,833
SCHOOL ASSIST IN FED AFFECTED AREAS-MAINT&		$3,932
VOC REHAB SERV, SOC SEC DISABIL BENEFICIAR		$2,049
AGENCY TOTAL - FEDERAL FUNDS		**$3,926,774**
INFLUENCE OF FEDERAL ACTIVITIES *		
HIGHER ED ACT INSURED LOANS		($6,081)
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT		
INFLUENCE OF FEDERAL ACTIVITIES *		
HOME MORTGAGE INSURANCE		($20,000)
INSURANCE FOR PROPERTY IMPROVEMENT LOANS		($26,000)
DEPARTMENT OF THE INTERIOR		
FEDERAL FUNDS		
NATIONAL WILDLIFE REFUGE FUND	14	$157
AGENCY TOTAL - FEDERAL FUNDS		**$157**
DEPARTMENT OF LABOR		
FEDERAL FUNDS		
FEDERAL EMPLOYEE INJURY COMPENSATION	9	$1,119
UNEMPLOYMENT INSURANCE		$11,484
AGENCY TOTAL - FEDERAL FUNDS		**$12,603**
DEPARTMENT OF TRANSPORTATION		
FEDERAL FUNDS		
COAST GUARD MARINE, HARBOR & SHORE SVC		$951
HIGHWAY PLANNING AND CONSTRUCTION		$122,237
AGENCY TOTAL - FEDERAL FUNDS		**$123,188**
TREASURY DEPARTMENT		
FEDERAL FUNDS		
ADM THE PUBLIC DEBT & SAVINGS BOND DIV		$598
FISCAL ASSISTANCE TO STATE & LOCAL GOVTS		$237,420
INTEREST ON THE PUBLIC DEBT	10	$583,014
AGENCY TOTAL - FEDERAL FUNDS		**$821,032**
CIVIL SERVICE COMMISSION		
FEDERAL FUNDS		
ANNUITIES UNDER SPECIAL ACTS, CSC	8	$10
CIVIL SERVICE RETIREMENT & DISABILITY FUND	8	$157,716
AGENCY TOTAL - FEDERAL FUNDS		**$157,726**
GENERAL SERVICES ADMINISTRATION		
FEDERAL FUNDS		
BUILDINGS MANAGEMENT FUND		$268
AGENCY TOTAL - FEDERAL FUNDS		**$268**
POSTAL SERVICE		
FEDERAL FUNDS		
THE POSTAL FUND		$565,740
AGENCY TOTAL - FEDERAL FUNDS		**$565,740**
RAILROAD RETIREMENT BOARD		
FEDERAL FUNDS		
SOCIAL INSURANCE PROGRAM FOR RR WORKERS	21	$77,811
AGENCY TOTAL - FEDERAL FUNDS		**$77,811**
VETERANS ADMINISTRATION		
FEDERAL FUNDS		
DEPENDENCY & INDEMNITY & DEATH COMPENSATIO	17	$27,126
SONS, DAUGHTERS, WIVES & WIDOWS EDUCATION	12	$3,482
VETERANS DEATH PENSION	17	$56,494
VETERANS DISABILITY COMPENSATION	12	$138,831
VETERANS DISABILITY PENSION	12	$89,757
VETERANS INSURANCE AND INDEMNITIES	17	$34,816
VETERANS READJUSTMENT TRAINING	12	$111,625
VETS BURIAL AWARDS & OTHER MISC BENEF PMT	12	$4,588
VETS. REHAB TRAINING FOR DISABLED VETS	12	$4,77[illegible]
AGENCY TOTAL - FEDERAL FUNDS		**$471,490**
INFLUENCE OF FEDERAL ACTIVITIES *		
VETERANS GUARANTEED AND INSURED LOANS		($26,925)
COUNTY TOTAL - FEDERAL FUNDS		**$11,209,939**

Appendix Table 8-7 (Continued)
FEDERAL OUTLAYS FOR SOUTHEAST IOWA

CODE NO.	PRORATION OR ALLOCATION METHOD
1.	Prorated by population to county level
2.	Prorated to county level based on last year's survey of consumers and subscribers by county.
3.	Allocated equally to counties within each re-development district located in 13 Appalachian states.
4.	Outlays are allocated or identified to the location of the State Agency receiving the money.
5.	Outlays are allocated or identified to the location of the Prime contractor's main office.
6.	Outlays are allocated or identified to the location of the purchasing office.
7.	Outlays are allocated or identified to the location of the duty station where the costs are incurred.
8.	State totals are based on average monthly annuities applied to the national figure. Proration to counties is based on population.
9.	15 percent of the outlay prorated to county levels based on 85 percent of outlays that is actual
10.	Prorated by population to county levels
11.	Prorated to county levels according to prior year's distribution
12.	Prorated on the basis of special groups to county levels, e.g. recipients, field stations,state employees, veterans, etc.
13.	Prorated by the percentage of payroll and related costs to county levels.
14.	Prorated to state and county, by size of geographic area.
15.	Prorated to state and county, by geographic distribution of employees.
16.	Prorated to state and county by payroll costs except for large expenditures which are actual to the area.
17.	Data accurate to national and Federal Reserve District level based on population in the district.

Appendix Table 8-7 (Continued)
FEDERAL OUTLAYS FOR SOUTHEAST IOWA

18. Prorated by estimated obligation to state and county levels.

19. Payroll accurate to all levels; other outlays based on weighted factors developed from the geographic distribution of payroll.

20. Actual outlays obtained, at each geographic level, for the first month in each quarter. The total of each fund for those four months is compared to the year-end totals and the geographic levels are projected according to the ratio obtained.

21. State totals based on statistical tabulations derived from monthly accounting totals; county totals projected from December payments of prior fiscal year to arrive at full year totals; record of county payment distribution maintained on Zip Code basis.

22. Payroll outlays are accurate to all levels. Other outlays are prorated to state and county levels by projecting annual payments to suppliers and producers from total obligations extending over a period of years (negative factoring method) record of county distribution maintained through accounting documentation of expenditures.

23. Payroll and travel accurate to all levels. Administrative expenses prorated based on prior years' geographic levels.

Appendix Table 8-8
GRANTS TO LOCAL GOVERNMENTS AND COLLEGES

GRANTS TO COUNTIES AND CITIES

County	Recipient of Grant	Project	Federal Grant	Matching Funds	Source of Match
Des Moines	Des Moines County	Civil Defense-System Maintenance Services	$ 30.00	$ 30.00	Local
Des Moines	Des Moines County	Civil DefenseState and Local Supporting Systems Equipment	160.50	160.50	Local
Des Moines	Des Moines County	Civil Defense-State and Local Supporting Systems Equipment	187.50	187.50	Local
Des Moines	Des Moines County/Municipal	Civil Defense-System Maintenance Services	540.00	540 00	Local
Des Moines	Des Moines County/Municipal	Civil Defense-System Maintenance Services	100.00	00	Local
Des Moines	Burlington	Child Lead Poisoning Grant	103,653.00	30,998.00 3,553.00	Local Other
Des Moines	Burlington Community School District	School Assistance in Federally Affected Areas-Major Disaster Assistance	208,793.00		
Des Moines	Burlington Community School District	School Assistance in Federally Affected Areas-Major Disaster Assistance	35,150.00		
Des Moines	Danville Community School District	School Assistance in Federally Affected Areas-Major Disaster Assistance	3,881.00		
Des Moines	Danville Community School District	School Assistance in Federally Affected Areas-Maintenance and Operation	20,541.00		
Des Moines	Mediapolis Community School District	School Assistance in Federally Affected Areas-Maintenance and Operation	15,405.00		
Des Moines	West Burlington Independent School District	School Assistance in Federally Affected Areas-Maintenance and Operation	19,417.00		
Henry	Henry County Conservation Board	To Acquire Approximately 160 Acres of Land for Gibson Recreation Area	10,240.00	10,240.00	Local
Henry	Mount Pleasant Community School District	School Assistance in Federally Affected Areas-Maintenance and Operation	33,427.00		
Henry	New London Community School District	School Assistance in Federally Affected Areas-Maintenance and Operation	27,700.00		
Henry	Winfield Mount Union Community School District	School Assistance in Federally Affected Areas-Maintenance and Operation	3,235.00		
Lee	Lee County	Civil Defense-Emergency Operating Centers	$ 4,825.00	$ 4,825.00	
Lee	Lee County	Civil Defense-Emergency Operating Centers	2,427.00	2,427.00	Local
Lee	Lee County	Civil Defense-System Maintenance Services	550.00	550.00	Local
Lee	Central Community of Argyle School District	School Assistance in Federally Affected Areas-Maintenance and Operation	10,000.00		
Lee	Donnellson	For the Development of Donnellson City Park	5,000.00	5,000.00	Local
Lee	Fort Madison Community School District	School Assistance in Federally Affected Areas-Maintenance and Operations	50,389.00		
Louisa	Letts	Development Grant for Waste Disposal System	314,000.00	3,600.00	Local
Louisa	Morning Sun Community School District	School Assistance in Federally Affected Areas-Maintenance and Operation	6,084.00		
Louisa	Wapello Community School District	School Assistance in Federally Affected Areas-Maintenance and Operation	9,009.00		
Louisa	State Archaeologist	Toolesboro Mound Group Development for the Development of Six Conical Burial Mounds	11,778.00	11,778.00	State

Appendix Table 8-9
MULTI-COUNTY GRANT PROGRAMS

Counties	Office Location	Name of Organization	Purpose of Grant	Federal Grant	Required Match	Source of Matr
		South Central Iowa Community Action Progran, Inc.	Funds are used for the purpose of CAA Administration and General Community Programming	$220,000.00	$55,000.00	Local
		South Central Iowa Community Action Program, Inc.	Funds are used for the purpose of the full year head start program-part day for preschool children	128,374.00	35,882.00	Local
		South Central Iowa Community Action Program, Inc.	Neighborhood Youth Corps Program (2025-19). Funds used to provide opportunities to students of low-income families to earn sufficient funds to remain in school	155,950.00	1,620.00	Local In-kind Match
Des Moines, Henry, Lee and Washington	Burlington	Southeast Iowa Community Action Organization, Inc.	Funds are used for the purpose of CAA Administration, General Community Programming and Family Planning	260,000.00	59,500.00	Local
Des Moints, Henry, Lee and Washinfron	Burlington	Southeast Iowa Community Action Organization, Inc.	Neighborhood Youth Corps Program (2034-19). Funds used to provide opportunities to students of low-income families to earn sufficient funds to remain in school	144,330.00	4,320.00	Local In-kind Match
Des Moines, Henry, Lee and Washington	Burlington	Southeast Iowa Community Action Organization, Inc.	Operation Mainstream, Title I-E Program to provide work-training and employment activities for chronically unemployed poor adults	87,060	9,090.00	Local In-kind Match
Des Moines, Henry, Lee and Washington	Burlington	Southeast Iowa Community	Funds are used for the purpose of full year head start part day and full day for preschool children	218,271.00	61.438.00	Local

Appendix Table 8-10
GENERAL REVENUE SHARING IN IOWA, 1973

County	City	First Entitlement Period	Second Entitlement Period	First-half ment Period	Total General Revenue Sharing FY 1973
Des Moines		$145,137.00	$139,273.00	82,089.00	$366,499.00
	Burlington	143,899.00	138,085.00	81,389.00	363,373.00
	Danville	2,976.00	2,856.00	1,683.00	7,515.00
	Mediapolis	3,880.00	3,724,00	2,194,00	9,798.00
	Middletown	782.00	750.00	442.00	1,974.00
	West Burlington	11,283	10,827.00	6,381.00	28,491.00
Henry		86,184.00	82,702.00	49,729.00	218,615.00
	Hillsboro	444.00	426.00	251.00	1,121.00
	Mount Pleasant	27,695.00	26,576.00	15,297.00	69,568.00
	Mount Union	486.00	466.00	268.00	1,220.00
	New London	6,055.00	5,811.00	3,345.00	15.211.00
	Olds	576.00	552.00	499.00	1,627.00
	Rome	238.00	228.00	124.00	600.00
	Salem	806.00	774.00	910.00	2,490.00
	Wayland	2,417.00	2,319.00	1,335.00	6,071.00
	Winfield	3,659.00	3,511.00	2,021.00	9,291.00
Lee		186,184.00	178,661.00	105,305.00	284,152.00
	Donnellson	1,705.00	1,636.00	964.00	4,405.00
	Fort Madison	70,292.00	67,452.00	39,757.00	177,501.00
	Franklin	196.00	188.00	111.00	495.00
	Houghton	210.00	202.00	119.00	541.00
	Keokuk	95,400.00	91,545.00	53,958.00	240,903.00
	Montrose	1,941.00	1,862.00	1,097.00	4,900.00
	St. Paul	429.00	412.00	243.00	1,084.00
	West Point	2,237.00	2,147.00	1,265.00	5,649.00
Louisa		76,074.00	73,001.00	42,616.00	191,691.00
	Columbus City	641.00	615.00	362.00	1,618.00
	Columbus Junction	3,343.00	3,208.00	1,889.00	8,440.00
	Cotter			55.00	55.00
	Fredonia	297.00	285.00	174.00	756.00
	Letts	766.00	735.00	433.00	1,934.00
	Morning Sun	2,396.00	2,299.00	1,355.00	6,050.00
	Oakville	910.00	874.00	514.00	2,298.00
	Wapello	9,734.00	9,341.00	5,503.00	24,578.00

Appendix Table 8-11
LOW RENT AND MULTI-FAMILY SUBSIDIZED HOUSING IN SOUTHEAST IOWA

Des Moines County

Burlington Low Rent Housing Agency
2830 Wingard Drive
Burlington, Iowa 52601

201 Elderly Units

Mr. Thornton A. Stanley,
Executive Director
Telephone: (319) 753-2142

Lee County

Fort Madison Low Rent Housing Agency
713 Seventh Street
P. O. Box 443
Fort Madison, Iowa

25 Nonelderly Units--leased
80 Elderly Units--proposed

Mr. Terry W. Van Aken,
Executive Director
Teleohone: (319) 372-6083

Keokuk Low Rent Housing Agency
111 South Second Street
Keokuk, Iowa 52632

162 Elderly Units

Mr. Leroy E. Lofton,
Executive Director
Telephone: (319) 524-4386

Rent is based on 25 percent of the families' adjusted gross income as defined by the local housing agency's admission policy.

Appendix Table 8-11
FHA INSURED MULTI-FAMILY--SUBSIDIZED IN SOUTHEAST IOWA (Cont'd)

Des Moines County

Burlington
Section 236
Mid-Town Gardens
61 Midtown Lane
Burlington, Iowa

60 Units

Contact: Adair O. Spear or
Ms. Carol Morris

Telephone: (319) 754-5515

Rents:

Basic Rent		Market Rent	
12 1-BR:	$114	12 1-BR:	$164.23
36 2-BR:	147	36 2-BR:	211.76
12 3-BR:	163	12 3-BR:	234.81

Depending on income, tenants could be paying rent anywhere from basic rent to market rent--or rent below basic rent available to certain eligible tenants under rent supplement.

Appendix B
ANALYSIS OF EMPLOYMENT DATA

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ANALYSIS OF EMPLOYMENT DATA

The study of the area included a survey of 48 of the larger employers. Voluntary returns were received from 29 of these firms with information on employment, major products or services, location of markets, and factors that may limit growth of the plant and similar plants in the area in the next 5 to 10 years.

Of the responding firms, six are in Keokuk, eight in Fort Madison, 13 in Burlington and vicinity, and two in Mount Pleasant. Appendix Table B-1 shows these and other broad business characteristics of the responding firms. The firms were classified into heavy and light divisions of durable and nondurable manufacturing or in the trade and services category.

Five of the firms had less than 100 employees in 1974 and, at the other extreme, two firms had more than 1,000 employees. Twenty-three of the firms had experienced losses or only slight gains in employment for 1972-1974. Employment increases of more than 200 were experienced by six of the firms. Twenty-three of the firms were oriented heavily toward export markets beyond the area and only four had less than 33 percent of their sales to export markets. Female employment predominated in three of the firms and was between 33 and 66 percent of total employment in seven firms. The remaining 19 firms had less than 33 percent of their employment in the female category.

The responding firms were asked to indicate any factors that will tend to limit growth of the plant and similar plants in the area in the next 5 to 10 years. The respondents could also indicate that they did not foresee serious problems that would limit growth for this type of plant. Appendix Table B-2 presents the responses for all firms in percentage terms in Column 1 and for five product orientation groups in the remaining columns. Significantly, 76 percent of all the responding firms indicated at least one type of growth problem. Market weakness (described as stable or declining markets in the questionnaire) was the most commonly listed growth problem with 59 percent of the firms identifying it. Raw material supply problems were listed by 38 percent of all firms; labor shortages by 31 percent; and investment costs, energy shortage, and transportation problems each identified by 21 percent. Additional detail is provided for all firms in Column 1 of Appendix Table B-2.

Appendix Table B-1
CHARACTERISTICS OF FIRMS SURVEYED

Characteristic	Number of Firms	Percent of Firms
Location		
Keokuk	6	21%
Fort Madison	8	27
Burlington	13	45
Mount Pleasant	2	7
Type of Plant		
Heavy Durable Manufacturing	7	24
Light Durable Manufacturing	4	14
Heavy Nondurable Manufacturing	6	21
Light Nondurable Manufacturing	7	24
Trade or Services	5	17
1974 Employment (Number of Workers)		
Under 100	5	17
100-249	12	41
250-499	8	28
500-999	2	7
1,000 and Over	2	7
1972-1974 Employment Change		
Loss	7	24
0-49 Gain	16	55
50-199 Gain	0	0
200 or More Gain	6	21
Export Market Orientation		
Less than 33 Percent	4	14
33-66 Percent	2	7
67 or Higher Percent	23	79
Local Market Orientation		
Less than 33 Percent	24	84
33-66 Percent	1	3
Over 66 Percent to Households	3	10
Over 66 Percent to Other Local	1	3
Female Employment		
Less than 33 Percent	19	66
33-66 Percent	7	24
67 or Higher Percent	3	10

Appendix Table B-2
PERCENTAGE OF FIRMS IDENTIFIED WITH POTENTIAL GROWTH PROBLEMS, BY TYPE OR PRODUCT OR SERVICE

	Type of Firm					
	(1)	(2)	(3)	(4)	(5)	(6)
Growth Problems	All Firms	Heavy Durable Manufac-turing	Light Durable Manufac-turing	Heavy Non-durable Manufac-turing	Light Non-durable Manufac-turing	Trade or Service
Any Type	76%	86%	75%	100%	57%	80%
Market Weakness	59	86	75	50	29	40
Market Share	-	-	-		-	-
Raw Material Supply	38	29	-	50	57	*
Investment Cost	21	*	*	*	*	40
Energy Shortage	21	-	*	67	*	-
Natural Gas	21	-	*	67	*	-
Electricity	14	-	*	33	*	-
Coal	*	-	-	*	-	-
Transportation	21	*	*	50	*	-
Water	-	-	-	-	-	-
Highway	14	-	*	33	*	-
Air	-	-	-	-	-	-
Labor Shortage	31	43	50	50	*	-
Skilled	7	-	*	*	-	-
Unskilled	7	*	*	-	-	-
Waste Disposal	10	-	-	33	*	-
Liquid Waste	7	-	-	33	-	-
Solid Waste	*	-	-	-	*	-
Gaseous Waste	*	-	-	-	*	-
(Percent Represented by One Firm)	(3%)	(14%)	(25%)	(17%)	(14%)	(20%)

Note: An asterisk indicates that the problem was identified by only one firm of the group.

The division of the firms into product categories identifies some differences in growth problems. Column 4 indicates that firms in the heavy, nondurable manufacturing class have a significantly higher expectation of growth problems than other types of firms. All of these manufacturers indicated at least one growth problem. Market weakness was indicated by 50 percent, but some other problems ranked as high or higher. Sixty-seven percent indicated that the energy shortage, particularly natural gas, is or will be a problem, and 50 percent were also concerned with shortages in raw materials, transportation, and labor. Appendix Table B-3 divides firms in three ways to produce six categories. Column 1 lists the percentage of firms associated with each growth problem for firms with more than 250 workers. Column 2 lists the firms having less than 250 workers each. In general, a study of the percentage comparisons may indicate that both smaller and larger firms perceive growth problems in the future and to approximately the same degree. The smaller firms, however, seem to be at somewhat more of a disadvantage in relation to market weakness, raw material supply problems, and cost of investment funds.

The contrast between Columns 3 and 4 is dramatic. The firms which had high growth (more than 200 additional workers) between 1972 and 1974 showed significantly less concern with growth problems than did the firms with lower growth (less than 50 additional employees or employment losses). From the standpoint of area growth, this may be a significant finding, because most of the firms which responded and many other firms of the area have had a low-growth experience in the last two or three years. Columns 5 and 6 show differences among firms that are associated with the sex mix of the work force. The firms whose employment was more than 33 percent female indicated significantly less concern with growth problems as compared to those that had less than 33 percent females in the work force.

Appendix Table B-3
PERCENTAGE OF FIRMS IDENTIFIED WITH POTENTIAL GROWTH PROBLEMS, BY EMPLOYMENT LEVEL, PREVIOUS GROWTH, AND FEMALE EMPLOYMENT ORIENTATION

	Type of Firm					
	(1)	(2)	(3)	(4)	(5)	(6)
Growth Problems	Over 250 Workers	Under 250 Workers	High Growth 1972-1974	Low Growth 1972-1974	Over 33 Percent Female	Under 33 Percent Female
One or More	77%	82%	77%	78%	80%	74%
Market Weakness	42	70	50	61	50	63
Market Share	-	-	-	-	-	-
Raw Material Supply	25	47	-	48	30	42
Investment Cost	*	29	*	22	20	21
Energy Shortage	25	18	-	26	-	32
Natural Gas	25	18	-	26	-	32
Electricity	*	12	-	17	-	21
Coal	*	-	-	*	-	*
Transportation	17	24	*	22	-	32
Water	-	-	-	-	-	-
Rail	17	24	*	22	-	32
Highway	*	18	*	13	-	21
Air	-	-	-	-	-	-
Labor Shortage	33	29	*	35	*	42
Skilled	17	-	*	*	*	*
Unskilled	-	12	-	9	-	11
Waste Disposal	*	12	-	13	-	16
Liquid Waste	*	*	-	9	-	11
Solid Waste	-	*	-	*	-	*
Gaseous Waste	-	*	-	*	-	*
(Percent Represented by One Firm)	(8%)	(6%)	(17%)	(4%)	(10%)	(5%)

Note: An asterisk indicates that the problem was identified by only one firm of the group.

Appendix C
EXPORT SECTOR ASSUMPTION

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EXPORT SECTOR ASSUMPTION

1. National employment changes, 1975-1985, for each industry that is export-oriented in the region will be proportional to projected earnings changes for two-digit codes shown on page 34 of the April, 1974, issue of *Survey of Current Business*. Changes at the three-digit level will be calculated as a projection of the 1962-1972 changing share which each three-digit code exhibited during that period in relation to its two-digit total.

2. Multistate area employment in each regional export industry will, during 1975-1985, gain the same percentage of the *outside-the-area* share of the national employment in the industry as it gained during the 1962-1972 period. If the area did not increase its share in the nation during 1962-1972, assumption Item 3 will apply.

3. Multistate area employment in each regional export industry will, during 1975-1985, lose the same percentage of its *inside-the-nation* share of the national employment in the industry as it lost during the 1962-1972 period.

4. The states which are most appropriate to use as the multistate region are Minnesota, Iowa, Missouri, Wisconsin, and Illinois.

5. Regional (four-county) employment in each regional export industry will, during 1975-1985, gain the same percentage of the *outside-the-region* share of multistate area employment in the industry as it gained during the 1962-1972 period. If the region did not increase its share in the multistate area during 1962-1972, assumption Item 6 will apply.

6. Regional employment in each regional export industry will, during 1975-1985, lose the same percentage of its *inside-the-region* share of multistate area employment in the industry as it lost during the 1962-1972 period.

7. Tentative identification of new industrial additions will be those industries not already in the region that are above the 95th percentile in multistate percentage gain (ranked from high to low) of the

national employment in the industry during 1962-1972. Final identification is subject to technical feasibility for the area. For example, coal mining could probably not be accepted as a feasible addition.

8. Tentative identification of industrial deletions will be those industries already in the region that are below the *fifth (.05) percentile in multistate area* percentage loss (ranked from smallest negative to largest negative) of the national employment in the industry during 1962-1972. Final identification is subject to consideration of unusual economic advantage in the region.

9. The final estimates of employment levels in export-oriented major two-digit and three-digit industries will incorporate the information from the initial estimates, pertinent information from the survey of local industries, and other applicable information which has been obtained by the parties to this agreement.

RESIDENTIARY SECTOR ASSUMPTIONS

1. Employment in each residentiary industry (or that part of employment identified as residentiary in a mixed export-residentiary industry) will be estimated as a designated fraction of total employment of the four-county region.

2. The fraction of total employment that is applicable to each industry will be identified in two stages as follows:

   a. The ratio of employment in the industry to total employment in the region in 1972 will be the present ratio.

   b. The present ratio will be adjusted by multiplying by a factor that reflects the change in output per employee in the industry relative to the average change in output per employee over all industries. The source for average yearly rates of change or output per employee for all industries will be the publication, *The Iowa Economy, Interindustry Structure and Accounts*, published January, 1974, by the Office for Planning and Programming, State of Iowa.

Appendix D
MISCELLANEOUS BACKGROUND STUDY TABLES

Appendix Table D-1
IOWA STATE EMPLOYMENT SERVICE--1974
MANUFACTURING EMPLOYMENT CHANGES BY COUNTY

	January	February	May	April	May	June	July	August	September	October	10-Month Average
Des Moines County											
Total Manufacturing	9,840	9,790	9,830	9,910	9,370	9,320	9,490	10,090	10,010	9,880	9,753
Durable Goods	8,550	8,560	8,570	8,660	8,090	8,040	8,140	8,780	8,750	8,630	8,477
Nondurable Goods	1,240	1,270	1,270	1,250	1,280	1,290	1,350	1,310	1,260	1,250	1,277
North Lee County (Ft. Madison)											
Total Manufacturing	4,010	4,050	4,140	4,170	4,140	4,330	4,270	4,180	4,230	4,120	4,164
Durable Goods	2,300	2,320	2,410	2,410	2,470	2,550	2,560	2,490	2,540	2,430	2,448
Nondurable Goods	1,700	1,730	1,740	1,760	1,680	1,710	1,690	1,690	1,690	1,700	1,718
South Lee County (Keokuk)											
Total Manufacturing	3,130	3,080	3,090	2,980	3,130	3,220	3,240	2,930	3,280	3,300	3,138
Durable Goods	980	900	900	890	830	830	840	840	890	900	880
Nondurable Goods	2,140	2,180	2,190	2,090	2,280	2,390	2,400	2,090	2,400	2,400	2,256
Henry County											
Total Manufacturing	920	960	990	1,060	1,110	1,240	1,230				1,072[1]
Durable Goods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nondurable Goods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1973 Louisa County	Annual Average for 1973										
Total Manufacturing											380[2]

[1] Seven-month average.
[2] 1973 annual - 1974 NA

Appendix Table D-1
IOWA STATE EMPLOYMENT SERVICE--1974
MANUFACTURING EMPLOYMENT CHANGES BY COUNTY (CONTINUED)

	January	February	May	April	May	June	July	August	September	October	10-Month Average
Combined Lee County											
Total Manufacturing	7,840	7,130	7,230	7,150	7,270	7,550	7,510	7,110	7,510	7,420	7,302
Durable Goods	3,230	3,220	3,310	3,300	3,300	3,380	3,400	3,330	3,430	3,330	3,323
Nondurable Goods	3,840	3,910	3,930	3,850	3,960	4,170	4,110	3,780	4,090	4,100	3,974

Appendix Table D-2
ANNUAL COMMUTING PATTERNS BY COUNTY--(1)
COMPARISON OF PLACE OF WORK VS. PLACE OF RESIDENCE

	Annual Average 1970	Annual Average 1971	Annual Average 1972	Annual Average 1973	Nine-Month Average 1974	Five-Year Average Commuting Percentage
Des Moines						
Non-AG place of work	22,110	20,420	21,070	22,110	22,390	
Non-AG place of residence	16,890	15,680	16,190	16,930	17,092	
Commute into county	5,220	4,740	4,880	5,180	5,298	23% into county
Henry County						
Non-AG place of work	5,700	5,690	5,940	6,060	6,106	
Non-AG place of residence	5,000	4,990	5,200	5,300	5,337	
Commute out of county	700	700	740	760	769	12% out of county
Louisa County						
Non-AG place of work	3,090	3,150	3,210	3,320	NA	
Non-AG place of residence	1,990	2,020	2,060	2,110	NA	
Commute out of county	1,100	1,130	1,150	1,210	NA	36% out of county
North Lee County (Ft. Madison)						
Non-AG place of work	7,440	7,470	8,190	8,950	9,401	
Non-AG place of residence	6,840	6,870	7,510	8,190	8,593	
Commute into county	600	600	680	760	809	8% into county

(1) This table compares the place of work and place of residence of nonagricultural employees. The difference between these two factors is utilized in determining whether a county in the region is a net importer or exporter of labor. The nonagricultural wage and salary segment of the labor force is by far the largest employment category in the region; and, therefore, should provide a reasonable indication of total county export volumes. Nonagricultural wages and salary employment make up the following percentage of total employment in selected areas of the region: Des Moines County (87 percent), Henry County (78 percent), Louisa County (53 percent), North Lee County (82 percent), and Lee County (84 percent). Data taken from Iowa Employment Security Commission. Non-AG = Nonagricultural wage and salary employed (full or part time).

Appendix Table D-2
ANNUAL COMMUTING PATTERNS BY COUNTY--(1) (CONTINUED)
COMPARISON OF PLACE OF WORK VS. PLACE OF RESIDENCE

	Annual Average 1970	Annual Average 1971	Annual Average 1972	Annual Average 1973	Nine-Month Average 1974	Five-Year Average Commuting Percentage
South Lee County (Keokuk)						
Non-AG place of work	7,710	7,450	7,620	7,960	7,705	
Non-AG place of residence	7,060	6,850	6,995	7,320	7,066	
Commute into county	650	600	625	640	639	8% into county
Combined (North and South Lee County)						
Non-AG place of work	15,150	14,920	15,810	16,910	17,106	
Non-AG place of residence	13,900	13,720	14,505	15,510	15,685	
Commute into county	1,250	1,200	1,305	1,400	1,448	8% into county

(1) This table compares the place of work and place of residence of nonagricultural employees. The difference between these two factors is utilized in determining whether a county in the region is a net importer or exporter of labor. The nonagricultural wage and salary segment of the labor force is by far the largest employment category in the region; and, therefore, should provide a reasonable indication of total county export volumes. Nonagricultural wages and salary employment make up the following percentage of total employment in selected areas of the region: Des Moines County (87 percent), Henry County (78 percent), Louisa County (53 percent), North Lee County (82 percent), and Lee County (84 percent). Data taken from Iowa Employment Security Commission. Non-AG = Nonagricultural wage and salary employed (full or part time).

Appendix Table D-3
FISCAL YEAR 1974 INDEBTEDNESS OF SELECTED MUNICIPALITIES WITHIN THE SOUTHEAST IOWA REGION

	Burlington Des Moines County	Mount Pleasant Henry County	Fort Madison Lee County	Keokuk Lee County	Wapello Louisa County
1973 True Value	$239,307,709	$36,877,148	$132,000,000	$118,000,000	$11,154,229
Maximum Indebtedness (Five percent of True Value) for General Operation	11,965,385	1,843,857	6,600,000	5,900,000	557,771
Long-term Bonds Outstanding					
a. General Obligations	1,728,000	490,000	738,000	1,744,000	25,000
b. General Revenue	5,721,000	-	1,520,000	875,000	330,000
c. Special Assessment	-	-	33,000	155,000	-
Total	$ 7,449,000	$ 490,000	$ 2,291,000	$ 2,744,000	$ 355,000
Additional Capacity (Mamimum Indebtedness minus General Obligations)	$ 10,237,385	$ 1,353,857	$ 5,862,000	$ 4,156,000	$ 532,771

Note: Revenues and Special Assessments Bonds are not considered a part of the maximum indebtedness.

Appendix Table D-4

NUMBER OF MANUFACTURING ESTABLISHMENTS BY EMPLOYMENT SIZE CLASS AND MAJOR INDUSTRY GROUP--1963, 1967

	Des Moines County		Henry County		Lee County		Louisa County		Region	
	1963	1967	1963	1967	1963	1967	1963	1967	1963	1967
Ordnance and Accessories	1	1	-	-	-	-	-	-	1	1
1- 19 Employees	-	-	-	-	-	-	-	-	-	-
20- 99	-	-	-	-	-	-	-	-	-	-
100-249	-	-		-	-	-		-	-	-
250 and over	1	1			-	-			1	1
Food and Kindred Products	13	13	4	6	13	7	1	1	31	27
1- 19 Employees	4	6	4	6	8	4	-	-	16	16
20- 99	7	5	-	-	3	-	1	-	11	5
100-249	1	2		-	1	2		1	2	5
250 and over	1	-			1	1			2	-
Textile Mill Products	-	-	-	1	1	-	-	-	1	1
1- 19 Employees	-	-	-	-	1	-	-	-	1	-
20- 99	-	-	-	1	-	-	-	-	-	1
100-249	-	-		-	-	-		-	-	-
250 and over	-	-			-	-			-	-
Apparel and Other Textile Products	2	-	1	-	-	-	-	-	3	-
1- 19 Employees	2	-	-	-	-	-	-	-	2	-
20- 99	-	-	1	-	-	-	-	-	1	-
100-249	-	-		-	-	-		-	-	-
250 and over	-	-			-	-			-	-
Lumber and Wood Products	5	5	-	-	3	5	-	3	8	13
1- 19 Employees	3	3	-	-	3	5	-	3	6	11
20- 99	2	1	-	-	-	-	-	-	2	1
100-249	-	1		-	-	-		-	-	1
250 and over	-	-			-	-			-	-
Furniture and Fixtures	4	2	-	-	-	-	-	-	4	2
1- 19 Employees	2	1	-	-	-	-	-	-	2	1
20- 99	-	-	-	-	-	-	-	-	-	-
100-249	2	-		-	-	-		-	2	-
250 and over	-	1			-	-			-	1
Paper and Allied Products	1	3	-	-	4	4	-	-	5	7
1- 19 Employees	-	1	-	-	-	-	-	-	-	1
20- 99	1	2	-	-	2	1	-	-	3	3
100-249	-	-		-	2	3		-	2	3
250 and over	-	-		-	-	-			-	-
Printing and Publishing	9	9	4	3	5	5	4	5	22	22
1- 19 Employees	7	7	3	2	3	3	3	5	16	17
20- 99	2	2	1	1	2	2	1	-	6	5
100-249	-	-		-	-	-		-	-	-
250 and over	-	-			-	-			-	-

Source: U.S. Census of Business.

Appendix Table D-4
NUMBER OF MANUFACTURING ESTABLISHMENTS BY EMPLOYMENT SIZE CLASS AND MAJOR INDUSTRY GROUP--1963, 1967 (Cont'd.)

	Des Moines County		Henry County		Lee County		Louisa County		Region	
	1963	1967	1963	1967	1963	1967	1963	1967	1963	1967
Chemicals and Allied Products	5	3	-	-	8	7	-	-	13	10
1- 19 Employees	1	-	-	-	3	3	-	-	4	3
20- 99	4	3	-	-	1	2	-	-	5	5
100-249	-	-		-	3	1		-	3	1
250 and over	-	-			1	1			1	1
Petroleum and Coal Products	1	1	-	-	-	-	-	-	1	1
1- 19 Employees	-	-	-	-	-	-	-	-	-	-
20- 99	1	1	-	-	-	-	-	-	1	1
100-249	-	-		-	-	-		-	-	-
250 and over	-	-			-	-			-	-
Rubber and Plastic Products NEC	1	1	-	-	2	2	-	-	3	3
1- 19 Employees	-	-	-	-	1	1	-	-	1	1
20- 99	1	1	-	-	-	-	-	-	1	1
100-249	-	-		-	-	-		-	-	-
250 and over	-	-			1	1			1	1
Leather and Leather Products	-	1	1	1	1	-	-	-	1	2
1- 19 Employees	-	1	-	-	-	-	-	-	-	1
20- 99	-	-	1	1	1	-	-	-	1	1
100-249	-	-		-	-	-		-	-	-
250 and over	-	-			-	-			-	-
Stone, Clay and Glass Products	9	7	2	2	1	3	2	2	14	14
1- 19 Employees	8	5	2	2	1	2	2	2	13	11
20- 99	-	1	-	-	-	1	-	-	-	2
100-249	1	1		-	-	-		-	1	1
250 and over	-	-			-	-			-	-
Primary Metal Industries	3	2	-	-	5	4	-	-	8	6
1- 19 Employees	-	-	-	-	2	1	-	-	2	1
20- 99	2	1	-	-	1	1	-	-	3	2
100-249	1	1		-	-	-		-	1	1
250 and over	-	-			2	2			2	2
Fabricated Metal Products	4	3	-	-	6	4	-	1	10	8
1- 19 Employees	2	1	-	-	3	2	-	1	5	4
20- 99	2	1	-	-	1	1	-	-	3	2
100-249	-	1		-	2	1		-	2	2
250 and over	-	-			-	-			-	-
Machinery Except Electrical	8	9	4	3	8	10	1	2	21	24
1- 19 Employees	4	6	4	3	6	7	1	2	15	18
20- 99	2	1	-	-	2	3	-	-	4	4
100-249	1	1		-	-	-		-	1	1
250 and over	1	1			-	-			1	1

Source: U.S. Census of Business.

Appendix Table D-5
ELEMENTARY-SECONDARY SCHOOLS IN SOUTHEAST IOWA

Southeast Iowa's four counties contain 21 high schools and 63 elementary schools for a total 1974 school population of 25,800 public school students and 2,500 private school students. Below is a listing of all public and private schools within the four counties.

PUBLIC AND NONPUBLIC ELEMENTARY-SECONDARY SCHOOLS IN SOUTHEAST IOWA

LEE COUNTY

Central Lee Community School District:

Central High School
Central Jr. High School
Argyle Elementary School
Donnellson Elementary School
Montrose Elementary School

Nonpublic:

None

Fort Madison Community School District:

Fort Madison High School
Fort Madison Jr. High School
Denmark Elementary School
Jackson Elementary School
Jefferson Elementary School
Lincoln Elementary School
Richardson Elementary School
West Point Elementary School

Nonpublic:

Sacred Heart
Aquinas High School

LOUISA COUNTY

Columbus Community School District:

Columbus Community High School
Columbus Jct. Jr. High School
Columbus Jct. Elementary School
Conesville Elementary School
Cotter Elementary School

Nonpublic:

None

Louisa-Muscatine Community School District:

Louisa-Muscatine High School
Grandview Elementary School
Letts Elementary School
Louisa-Muscatine Elementary School

Nonpublic:

None

Morning Sun Community School District:

Morning Sun High School

Appendix Table D-5
ELEMENTARY-SECONDARY SCHOOLS IN SOUTHEAST IOWA (Cont'd)

DES MOINES COUNTY (CON'T)

Nonpublic:

Notre Dame High School
Burlington Catholic Elementary Schools

Danville Community School District:

Danville Jr.-Sr. High School
Danville Elementary School

Nonpublic:

None

Mediapolis Community School District:

Mediapolis High School
Mediapolis Elementary School
Huron Elementary School
Sperry Elementary School
Yarmouth Elementary School

Nonpublic:

None

West Burlington Ind. School District:

West Burlington High School
West Burlington Middle School
West Burlington Elementary School

Nonpublic:

None

HENRY COUNTY (CON'T)

Nonpublic:

None

Waco Community School District:

Waco High School
Waco Middle School
Crawfordsville Elementary School

Nonpublic:

None

Winfield-Mt. Union Community School District:

Winfield-Mt. Union Jr.-Sr. High School
Mount Union Elementary School
Wyman Elementary School

Nonpublic:

None

Appendix Table D-5
ELEMENTARY-SECONDARY SCHOOLS IN SOUTHEAST IOWA (Cont'd)

LEE COUNTY (CON'T)

St. Joseph Jr. High School
St. Mary
Marquette School, Inc.

Keokuk Community School District:

Keokuk High School
Keokuk Jr. High School
Garfield Elementary School
Hawthorne Elementary School
Jefferson Elementary School
Lincoln Elementary School
Torrence Elementary School
Washington-C Elementary School
Wells-Carey Elementary School

Nonpublic:

St. Vincent School
Cardinal Stritch School

DES MOINES COUNTY

Burlington Community School District:

Burlington High School
Apollo Central School
James Madison Middle School
Horace Mann Middle School
Oak Street Middle School
Black Hawk Elementary School
Central Avenue Elementary School
Corse Elementary School
Flint Hills Elementary School
James Wilson Grimes School
Lincoln School
Middletown Elementary School
North Hill Elementary School
Perkins Elementary School
Prospect Hill Elementary School
William Salter Elementary School
Sunnyside Elementary School
Washington Elementary School

LOUISA COUNTY (CON'T)

Morning Sun Elementary School

Nonpublic:

None

Wapello Community School District:

Wapello High School
Wapello Jr. High School
Oakville Elementary School
Wapello Elementary School

Nonpublic:

None

HENRY COUNTY

Mount Pleasant Community School District:

Mount Pleasant High School
Mount Pleasant Jr. High School
Harlan Elementary School
Lincoln Elementary School
Manning Elementary School
Pleasant Lawn Elementary School
Salem Elementary School
Saunders Elementary School
Van Allen Elementary School

Nonpublic:

None

New London Community School District:

New London Jr.-Sr. High School
Clark Elementary School

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