Project Title: Industrial Extension Service Program
Project No.: A-1438
Project Director: Mr. Hardy S. Taylor
Sponsor: Economic Development Administration, U. S. Dept. of Commerce
Effective: June 1, 1972
Estimated to run until: July 31, 1973*
Type Agreement: Technical Assistance Grant # 04-6-09029-6
Amount: $146,000 **

* Including two months for preparation and submission of approved final report

** Plus EES contribution of $35,000; Sub-account A-1438-001 to be budgeted with $41,000 for special use.

REPORTS: Quarterly Progress Reports
Draft Final Report
Approved Final Report

CONTACT PERSON: Mr. Pat Choate, Director
Southeastern Regional Office
1401 Peachtree Street, N. E. Room 555
Atlanta, Georgia 30301

Assigned to: Industrial Development Division

COPIES TO:
Project Director
Director
Assistant Director
GTRI
Division Chief(s)
Service Groups
Patent Coordinator
Photographic Laboratory
Security, Property, Reports Coordinator
EES Accounting
EES Supply Services
Library
Rich Electronic Computer Center
Project Files
Other
Project Title: Industrial Extension Service Program

Project No: A-1438

Project Director: Hardy Taylor

Sponsor: U. S. Department of Commerce/Economic Development Administration

Effective Termination Date: 6/30/77

Clearance of Accounting Charges: 9/30/77

Grant/Contract Closeout Actions Remaining:

- [X] Final Invoice
- [X] Final Fiscal Report
- [ ] Final Report of Inventions
- [ ] Govt. Property Inventory & Related Certificate
- [ ] Classified Material Certificate
- [ ] Other

Assigned to: Technology & Development Laboratory (School/Laboratory)

COPIES TO:

- Project Director
- Division Chief (EES)
- School/Laboratory Director
- Dean/Director—EES
- Accounting Office
- Procurement Office
- Security Coordinator (OCA)
- Reports Coordinator (OCA)

Library, Technical Reports Section
Office of Computing Services
Director, Physical Plant
EES Information Office
Project File (OCA)
Project Code (GTRI)
Other
A PROGRAM
OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED EDA COUNTIES IN GEORGIA

Interim Report

by
William C. Ward, Jr.
Senior Research Scientist

Hardy S. Taylor
Senior Research Scientist

Charles C. Wommack
Assistant Research Scientist

This technical assistance study was accomplished by professional consultants under contract with the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the contractor and do not necessarily reflect the view of the Economic Development Administration.

Industrial Development Division
Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY

June 1973
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>BACKGROUND INFORMATION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>A. Economic Characteristics of Service Area</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B. Organization and Establishment of Center</td>
<td>1</td>
</tr>
<tr>
<td>II.</td>
<td>PROGRAM ADMINISTRATION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>A. Program Objectives</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B. Technical Assistance Service</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>C. Project Personnel</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>D. Phasing of Work Program</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>E. Relationship to Other Development Efforts</td>
<td>1</td>
</tr>
<tr>
<td>III.</td>
<td>STRATEGY FOR SUBREGIONS</td>
<td>2</td>
</tr>
<tr>
<td>IV.</td>
<td>TECHNICAL ASSISTANCE PROJECTS</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>A. Location</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>B. Highlights of Project Activity</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>C. Project Summaries</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Central Savannah River Economic Development District</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Coastal Plain Economic Development District</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Georgia Mountains Economic Development District</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Heart of Georgia Economic Development District</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Northeast Georgia Economic Development District</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Ocone Area Economic Development District</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Slash Pine Area Economic Development District</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Southwest Georgia Economic Development District</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Middle Flint Economic Development District</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Chattahoochee-Flint Economic Development District</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Coastal Area Economic Development District</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Lower Chattahoochee Economic Development District</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Projects Outside of Economic Development Districts</td>
<td>21</td>
</tr>
<tr>
<td>V.</td>
<td>EVALUATION OF PROGRAM EFFORT</td>
<td>23</td>
</tr>
<tr>
<td>EXHIBITS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Organization Chart - Georgia Institute of Technology</td>
<td>25</td>
</tr>
<tr>
<td>2.</td>
<td>Organization Chart - Industrial Development Division</td>
<td>26</td>
</tr>
<tr>
<td>3.</td>
<td>Biographical Sketches</td>
<td>27</td>
</tr>
</tbody>
</table>
CHARTS

1. Economic Characteristics of EDA - Designated Counties - Georgia (Reported only in the first quarterly and final reports) 

2. Waived 

3. Regional Economic Development Center Activity Report 

4. Summary of Project Activity by Type and Subregion 

5. Job Impact Summary 

MAPS

1. Area of Field Office Responsibility 

2. Economic Development Districts 

3. EDA Counties and EDD's as of 1 January 1973
INTERIM REPORT
EDA TECHNICAL ASSISTANCE PROJECT
No. 04-6-09029-6

I. Background Information

A. Economic Characteristics of Service Area
   To be reported only in the first quarterly progress report and the final report.

B. Organization and Establishment of Center
   To be reported only in the first quarterly progress report and the final report.

II. Program Administration

A. Program Objectives
   To be reported only in the first quarterly progress report and the final report.

B. Technical Assistance Services
   To be reported only in the first quarterly progress report and the final report.

C. Project Personnel
   To be reported only in the first quarterly progress report and the final report.

D. Phasing of Work Program

   This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 26th day of June 1972.

E. Relationship to Other Development Efforts

   In furthering the EDA objectives in Georgia, the Industrial Development Division works closely with representatives of the following organizations:

   Georgia State Office of Planning and Budget - Georgia Department of Community Development - Economic Development Districts - Area Planning and Development Commissions - Chambers of Commerce - local Industrial Development groups - Coastal Plains Regional Commission - Small Business Administration - EDA Economic Development Representatives.

   Particular attention is directed to working with the EDD's and APDC's on individual projects. When an assistance project is opened these organizations are notified that IDD will be working in their area and a monthly progress report of activity on projects within their area is furnished.

   Cooperation with the above mentioned organizations is enhanced by IDD activities other than EDA within the state wherein IDD personnel are in almost constant contact with these groups.
III. Strategy for Subregions
To be reported only in the first quarterly progress report and the final report.

IV. Technical Assistance Projects
A. Location
Map 3 identified the counties in which work was performed under the program and indicates the number of projects conducted in each county.

B. Highlights of Project Activity
Chart 3 summarizes the highlights of project activity by major program categories. Chart 4 summarizes the project activity by type and subregion to indicate the distribution of effort throughout the state. Chart 5 summarizes the project activity by type and subregion to indicate the job impact.

The following projects were selected for special mention:

**Project 629:** Two individuals currently operating a general contracting firm contacted IDD for assistance in evaluating the feasibility of establishing a prefabricated home manufacturing plant in Ila, Georgia.

Several meetings were held with the principals as well as with potential investors regarding the establishment of a prefabricated home manufacturing operation. A preliminary cash flow projection for the first year of operation was prepared and checked for accuracy by the two principals. Negotiations were successfully concluded with the investors who plan to build and lease the building to the principals of this new venture. During consultations with the investors it was decided to seek a lease guarantee from the Small Business Administration. The market study and financial projections required for the lease guarantee application were completed by the IDD staff and submitted with the application. The lease guarantee was approved by SBA and construction of the plant is expected to begin within the next month. Initial employment is expected to be 15 with rapid growth to 50 workers at full operation.

**Project 637:** The Cherokee County Development Authority requested IDD assistance in development of an industrial park on land under option to the Authority.

A thorough analysis of the property was undertaken with the assistance of several agencies and individuals. Among those contacted to support the Authority efforts were:

- The Louisville and Nashville Railroad (possible sidings)
- Soil Conservation Service of the USDA (soil suitability studies)
- Georgia Power
- Georgia Natural Gas
- Herb Manous, Cherokee County Planner, Town of Canton (water extension)
- Georgia Department of Community Development (prospective tenants).

A site flyer describing the property and Canton in general was prepared to be used in promoting additional contacts. Copies will be made available to agencies who attract inquiries from prospects.
Additional work with the Authority is underway to finalize development plans and to prepare for meeting prospects.

C. Project Summaries

The 29 individual projects which were active during the quarter under the project of Management and Technical Assistance to businesses, industrial firms, and communities in designated Georgia counties are listed by Economic Development Districts and described on the following pages. These summary descriptions include an identification of the work performed, and a statement of the results achieved. The 18 projects which were still active as of May 31, 1973 are listed under "Ongoing Projects" in each EDD.
General

The Central Savannah River Economic Development District consists of thirteen counties, of which four are eligible Redevelopment Area counties: Burke, Emanuel, Taliaferro, and Wilkes. The Growth Centers are Augusta (Richmond County) and Swainsboro (Emanuel County).

New Projects

During the quarter one new project was established in this area.

Project 636: Assistance to an individual investigating a new venture in fiber glass boat manufacturing in Augusta, Georgia (Growth Center)

Nature of Problem: This individual requested assistance from IDD in securing information on fiber glass fabrication and other technical aspects of fiber glass boat manufacture.

Work Performed: The IDD staff has assembled a list of publications and has written, in memorandum form, an outline of suggested steps to take in this individual's study of the feasibility of entering into the manufacture of fiber glass boats. This individual has now progressed to the development of a prototype of the boat he plans to manufacture and IDD has provided information on techniques and equipment used in making a prototype fiber glass boat.

Results: The project is continuing.

Ongoing Projects

There are now three projects under way in this area. In addition to the one new project above there are:

Project 632: Assistance to a metal fabricating company in Screven County

Nature of Problem: This firm has recently built a new building and has requested assistance in plant layout and assembly line design for the production of wrecker bodies for small trucks. Information and assistance were also requested on spray dip painting and OSHA regulations on painting processes.

Work Performed: Two visits have been made to this new plant by IDD personnel. Information has been provided on the availability of painting services in Atlanta, as well as information on paint manufacturers' representatives who could be contacted. Plant layout assistance and assistance in assembly line design have been initiated. Information on improved welding methods has also been provided to the company.

Results: The project is continuing.

Project 633: Assistance to a railroad equipment repair shop in Augusta, Georgia (Growth Center)

Nature of Problem: This firm requested assistance in resolving difficulties in the paper work involved in its job shop cost accounting system.

Work Performed: An IDD staff member spent two days in this firm's plant studying the procedures in use and the control systems required for the cost
accounting process. Based upon the observations made during this study recommendations have been formulated in a report to the company on how it can improve its timekeeping and cost accounting procedures. Company management is now studying the recommendations made in the report in an attempt to simplify the approach and adapt the recommendations to their specific operation procedures. They have requested that IDD follow up on their progress.

Results: The project is continuing.

Discontinued Projects

None
General
The Coastal Plain Economic Development District consists of ten counties, of which three are eligible Redevelopment Area counties: Brooks, Cook and Lanier. The Growth Centers are Valdosta (Lowndes County) and Tifton (Tift County).

New Projects
During the quarter one new project was established in this area.

Project 640: Assistance to a door and window manufacturer in Valdosta, Georgia (Growth Center)

Nature of Problem: This firm has requested assistance in several aspects of planning a new facility for its operations. This new facility is needed because the present plant is too small to accommodate the current level of operation and thus makes it impossible to increase production to meet the recent growth in sales.

Work Performed: In several meetings with company officials, the IDD staff has assisted in developing the building plan, site plan, fire protection plan, and has discussed the over-all building size needed and the location of supporting columns within the production area. Information has also been collected and supplied to the company on sprinkler systems and insurance rates for the planned facility.

Results: The project is continuing.

Ongoing Projects
There is now the one new project above under way in this area.

Discontinued Projects
During the quarter two projects were discontinued.

Project 624: Assistance to a production printing company in Valdosta, Georgia (Growth Center)

Nature of Problem: This company requested IDD assistance in developing suggested improvements in its storage and shipping departments.

Work Performed: A visit was made to this company's plant to review the materials handling problems being experienced in the shipping and warehousing departments. Based on observations made during the initial visit, information on packaging, mailing, and processing has been delivered and reviewed with company officials. This information included new techniques and materials for wrapping and shipping (impact resistant wrapping materials, shipping boxes, shipping padding, etc.). Materials handling procedures and new OSHA standards for the facility were reviewed with the company.

Results: Company management has advised IDD that many of the suggested improvements in materials handling procedures have been implemented and that the information provided on packaging materials has been very valuable. No further assistance is needed at this time.
Project 626: Assistance to a lumber company in Valdosta, Georgia (Growth Center)

Nature of Problem: This company requested IDD assistance in solving a waste utilization problem in its roof truss operation.

Work Performed: This company's operation generates approximately 10,000 board feet of random length waste lumber per month. Assistance was rendered in investigating products which could utilize this waste lumber. A brief questionnaire and cover letter was prepared and mailed to window and door manufacturers in Georgia and north Florida in order to determine the need for shipping blocks. The company is now contacting the respondents to the questionnaire in order to more specifically determine their needs for shipping blocks and is analyzing information supplied by IDD on innovative techniques of housing construction developed by the U. S. Forestry Department.

Results: The company has decided not to pursue either of the two alternatives for solving their waste utilization problem at this time due to the recent increase in price of building materials. No further assistance is needed.
GEORGIA MOUNTAINS ECONOMIC DEVELOPMENT DISTRICT

General
The Georgia Mountains Economic Development District consists of 13 counties, of which five are eligible Redevelopment Area counties: Dawson, Forsyth, Towns, Union, and White. The Growth Centers are Gainesville (Hall County) and Toccoa (Stephens County).

New Projects
During the quarter one new project was established in this area.

Project 634: Assistance to a broom manufacturing company in Habersham County

Nature of Problem: The president of this firm requested IDD assistance in evaluating possible alternatives to wooden broom handles. He specifically requested assistance in investigating the possibility of using plastic broom handles.

Work Performed: An initial investigation into the costs of producing plastic broom handles indicates that plastic handles would be considerably more expensive than the wooden handles currently being used. Other possible materials for broom handles are being investigated. An investigation is also being made into the possibility of finding a lower cost source of wood handles.

Results: The project is continuing.

Ongoing Projects
There are now two projects under way in this area. In addition to the new project above there is:

Project 615: Assistance to a cooperative in Gainesville, Georgia (Growth Center)

Nature of Problem: A group of individuals has formed a cooperative for the production and processing of rabbits and has requested assistance in preparing a market study on the market for rabbit meat and by-products.

Work Performed: A meeting has been held with the manager of this group to discuss the various points to be covered in the proposed market study. The market study has now been completed and mailed to the manager of the cooperative. Additional assistance to this cooperative is pending a response from the manager.

Results: The project is continuing.

Discontinued Projects
None
HEART OF GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General
The Heart of Georgia Economic Development District consists of nine counties, of which three are eligible Redevelopment Area counties: Dodge, Pulaski, and Treutlen. The Growth Center is Dublin/East Dublin (Laurens County).

New Projects
During the quarter no new projects were established in this area.

Ongoing Projects
There are now three projects under way in this area.

Project 567: Assistance to a proposed sand mining and processing operation in Montgomery County

Nature of Problem: A group of individuals who own a deposit of high quality glass sand has requested assistance in determining the potential market for processed sand.

Work Performed: The IDD staff has prepared and presented to the management of this firm a market research report on the market for construction sand within a 100-mile radius of Mt. Vernon, Georgia (location of the sand deposit). The owners have recently advised IDD that they were successful in obtaining an SBA 502 loan for the construction of a facility to process the sand. Construction of the new facility is underway and information has been provided by IDD on design criteria for a settling pond to be used in the company's water pollution control efforts. Equipment has been ordered and plant layout and design plans are underway. At the request of management, information has been collected and provided to the company for their use in evaluating whether to buy or lease their fleet of trucks. Information has also been collected on pricing practices of sand processors in Georgia.

Results: The project is continuing.

Project 613: Assistance to a lumber mill in Telfair County

Nature of Problem: The president of this company has requested assistance in resubmitting an EDA loan application in order to secure the funds required for acquiring and completing the lumber mill complex at Lumber City, Georgia.

Work Performed: A presubmission conference has been held with the EDA field representative, IDD staff, and principals of the company. In a recent visit to the company the principals reaffirmed their intention to resubmit their EDA loan application and requested technical information on kiln drying of lumber. The technical information was mailed to the company. Assistance will be rendered as needed in the preparation of the new loan application.

Results: The project is continuing.

Project 622: Assistance to a golf ball manufacturer in Montgomery County

Nature of Problem: This company's existing plant facility is too small and the decision to delay a move to a larger plant has been re-evaluated and now plans are to proceed immediately with a move to a larger facility which has recently been acquired in Uvalda, Georgia.
Work Performed: Work has been completed on developing a suggested plant layout for the 11,000 square foot school building recently purchased by this company. Evaluation and recommendations have been formulated and presented to the company on materials handling equipment and procedures for the new facility.

Results: The project is continuing.

Discontinued Projects

None
NORTHEAST GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General
The Northeast Georgia Economic Development District consists of ten counties, of which one is an eligible Redevelopment Area county: Madison. The Growth Center is Athens (Clarke County).

New Projects
During the quarter no new projects were established in this area.

Ongoing Projects
There is now one project under way in this area.

Project 629: Assistance to a new venture in the manufacture of prefabricated homes in Madison County

Nature of Problem: Two individuals currently operating a general contracting firm contacted IDD for assistance in evaluating the feasibility of establishing a prefabricated home operation in Ila, Georgia.

Work Performed: Several meetings have been held with the principals as well as with potential investors regarding the establishment of a prefabricated home manufacturing operation. Preliminary cash flow projections for the first year of operation have been prepared and checked for accuracy by the two principals. Negotiations are under way with the investors who plan to build and lease the building to the principals of this new venture. During consultations with the investors it was decided to seek a lease guarantee from the Small Business Administration. The market study and financial projections required for the lease guarantee application were completed by the IDD staff and submitted with the application. The lease guarantee was approved by SBA and construction of the plant is expected to begin within the next month.

Results: The project is continuing.

Discontinued Projects
None
General
The Oconee Area Economic Development District consists of seven counties, of which one is an eligible Redevelopment Area county: Hancock. The Growth Center is Milledgeville (Baldwin County).

New Projects
During the quarter no new projects were established in this area.

Ongoing Projects
There are now no projects under way in this area.

Discontinued Projects
None
General
The Slash Pine Area Economic Development District consists of eight counties, of which two are eligible Redevelopment Area counties: Atkinson and Clinch. The Growth Center is Waycross (Ware County).

New Projects
During the quarter one new project was established in this area.

Project 638: Assistance to a food processing company in Coffee County

Nature of Problem: The president of this firm requested IDD assistance in analyzing their personnel procedures and policies in order to reduce the high turnover being experienced in its work force.

Work Performed: A meeting with the management of this firm revealed that since 1967 the work force has grown from 424 employees to the current level of nearly 1,000 employees. In analyzing the problem, it was discovered that the primary cause of the work force turnover was the explosive growth and expansion of the company. During the visit to the plant many recommendations and suggestions were made to management and they expressed the intention of implementing these suggestions immediately. A written report detailing the suggestions has been prepared and forwarded to the company management.

Results: The project is continuing.

Ongoing Projects
There are now two projects under way in this area. In addition to the new project above there is:

Project 560: Assistance to a fiber glass company in Bacon County

Nature of Problem: A group of individuals is establishing a company to manufacture fiber glass bath enclosures and has requested IDD assistance.

Work Performed: IDD is assisting with determining capital requirements, selection of equipment, and the development of a plant layout, and with a market evaluation. A visit was arranged to a plant in Metter, Georgia, which produces a similar product, for the purpose of observing the production process and reviewing the equipment used in the production of fiber glass products. A market survey has been prepared and presented to the company for evaluation. Based upon this report the principals have decided that their initial production estimates had been overly optimistic. They were assisted with a reevaluation of the proposed venture based on a reduced production estimate. An investigation was made of the feasibility of producing fiber glass septic tanks. Construction has been completed on a manufacturing facility for the production of bathroom fixtures. Efforts to recruit a plant manager have been successful and production has started. The firm which originally contracted to supply the molds failed to deliver and production was delayed while molds were being secured from another firm. Quality control checks by an IDD staff member were made on a representative sample of the first production unit. Assistance was also given in improving materials handling procedures in order to increase operating efficiency.

Results: The project is continuing.
Discontinued Projects

During the quarter two projects were discontinued.

Project 621: Assistance to an individual in Clinch County

Nature of Problem: An individual interested in investigating the potential of establishing a manufacturing facility for beekeeping supplies requested IDD assistance in determining the potential market for beekeeping woodenware supplies for this venture.

Work Performed: Data were collected in the preparation of a preliminary market survey for beekeeping woodenware supplies. The products under consideration in this market are hive bodies, supers, bottom boards, and wooden covers. The preliminary market survey has now been completed and forwarded to the individual for his review and information in making his decision. In a recent meeting with this individual, he expressed the intention of entering the manufacture of beekeeping woodenware supplies through the acquisition of an established company.

Results: The owner of the company to be acquired has delayed indefinitely the sale of his business and therefore the individual assisted under this project has postponed any action on the manufacture of beekeeping supplies. No further assistance is required.

Project 628: Assistance to a farm machinery distributor in Clinch County

Nature of Problem: The owner of this farm machinery distributorship requested assistance in locating a fabricator capable of producing several tractor parts which are in demand in the area.

Work Performed: Potential fabricators for the tractor parts were contacted and those who responded were sent shop drawings and specifications of the parts. Several price quotations were received which varied from over $4.00 to a low of $ .84.

Results: The shop submitting the low bid is now producing the parts for this company. No further assistance is needed, the project is closed.
General

The Southwest Georgia Economic Development District consists of 13 counties, of which four are eligible Redevelopment Area counties: Baker, Calhoun, Grady, and Miller. The Growth Centers are Albany (Dougherty County) and Bainbridge (Decatur County).

New Projects

During the quarter one new project was established in this area.

Project 639: Assistance to a new cotton gin venture in Lee County

Nature of Problem: The principals of the new venture requested IDD assistance in their efforts to buy and modernize a cotton gin in Smithville, Georgia.

Work Performed: As a result of several meetings with the principals to review their plans, the IDD staff has recommended that they seek an SBA 502 loan. The necessary information for their loan application is being collected and assistance in the preparation of this loan application will be provided as soon as the necessary information is collected.

Results: The project is continuing.

Ongoing Projects

There are now two projects under way in this area. In addition to the new project above there is:

Project 619: Assistance to an individual in Lee County

Nature of Problem: An individual interested in establishing a pecan shelling plant in Lee County requested information on financing such a venture through SBA.

Work Performed: Background information required for the preparation of an SBA loan application is being collected. A consulting firm in Marietta, Georgia, which has been assisting this new venture has been contacted in order to secure its cooperation. Plans and specifications for the building, machinery, and equipment are being developed in anticipation of successfully securing SBA financing for this venture. The Leesburg Development Corporation has been contacted by Company officials and has agreed to cooperate in requesting an SBA community development loan for the purpose of building a facility to house this company's operation. It is anticipated that initial employment will be 100 people with a total project cost of approximately $500,000.

Discontinued Projects

During the quarter two projects were discontinued in this area:

Project 617: Assistance to a truck body manufacturer in Worth County

Nature of Problem: The president of this firm requested an evaluation of the management organization and production controls and processes. Assistance in complying with the new OSHA regulations was specifically requested.
Work Performed: Two IDD staff members visited this plant and reviewed with the president his accountant's evaluation of the problems in the current cost control system. Various management reporting and control procedures were discussed and recommendations for improvements were made. During this visit a preliminary evaluation was made of this plant with particular attention being given to the area in which safety hazards exist. Specific recommendations on ways to comply with OSHA regulations were formulated and sent to the company.

Results: No further assistance needed, the project is closed.

Project 618: Assistance to an individual in Albany, Georgia (Growth Center)

Nature of Problem: An individual interested in establishing a Chinese restaurant in Albany, Georgia, requested assistance in seeking an SBA loan or an SBA lease guarantee.

Work Performed: Assistance was rendered in negotiating with an investor who had expressed a willingness to construct a building for this new venture, provided an SBA lease guarantee could be secured. The information necessary to complete an SBA loan application was collected.

Results: This individual has now leased a building in which he is opening his restaurant operation. No SBA loan or lease guarantee is now required. No further assistance is needed at this time, the project is closed.
MIDDLE FLINT ECONOMIC DEVELOPMENT DISTRICT

General

The Middle Flint Economic Development District consists of eight counties, of which one is an eligible Redevelopment Area county: Webster. The Growth Center is Americus (Sumter County).

New Projects

During the quarter one new project was established in this area.

Project 635: Assistance to a furniture manufacturing company in Schley County

Nature of Problem: The president of this venture requested IDD assistance in developing plant layout plans for a new 25,000 sq. ft. manufacturing plant in Ellaville, Georgia. This new plant is being constructed due to the damage to their existing plant building by an extremely heavy snow fall.

Work Performed: Preliminary discussions have been held on the production requirements for the new facility. IDD staff has requested that the company collect and provide additional information prior to undertaking the plant layout design.

Results: The project is continuing.

Ongoing Projects

There are now two projects under way in this area. In addition to the new project above there is:

Project 614: Assistance to a utility building manufacturer in Taylor County

Nature of Problem: This firm has been in business only a short time and is presently operating in a 7,000 square foot leased facility. The sales have grown to the point that the company must now lease a larger building in order for production to meet the sales level. Assistance has been requested in making an application to SBA for a loan to finance this move.

Work Performed: Information, which included general information, cash flow, and pro forma financial statements, was collected for the loan application. The SBA loan application was completed and submitted for approval. We have recently been informed by the SBA representative that the loan was approved in the amount of $50,000. There has been a temporary delay in disbursement of the funds under the approved SBA loan due to technicalities. The principals have been assured that there is no problem with the loan and they have proceeded with the move to a larger facility. IDD has developed a suggested cost accounting system for this company. This system has been discussed and explained to the bookkeeper and has been implemented. As a result of the successful implementation of the cost control system, other simple management tools (e.g., breakeven point analysis, cash budgeting, sales forecasting, production forecasting) have been explained and discussed with company officials and implementation of these tools is being undertaken.

Results: The project is continuing.

Discontinued Projects

None
The Chattahoochee-Flint Economic Development District consists of nine counties, of which one is an eligible Redevelopment Area county: Pike. The Growth Centers are Carrollton (Carroll County) and La Grange (Troup County).

New Projects
During the quarter no new projects were established in this area.

Ongoing Projects
There are now no projects under way in this area.

Discontinued Projects
None
COASTAL AREA ECONOMIC DEVELOPMENT DISTRICT

General

The Coastal Area Economic Development District consists of six counties, of which three are eligible Redevelopment Area counties: Camden, Long, and McIntosh. The Growth Centers are Brunswick (Glynn County) and Hinesville (Liberty County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

During the quarter one project was discontinued.

Project 623: Assistance to a plastics product manufacturer in Camden County

Nature of Problem: The two owners of a company manufacturing fiber glass toppers for pickup trucks requested IDD assistance in locating sources of supply for windows, vinyl molding, aluminum extrusions, and accessories.

Work Performed: During the initial visit to the company an IDD staff member determined that the company critically needed assistance in the proper utilization of its fiber glass application equipment. Technical data on various types of fiber glass application equipment were provided to the company for its information. A visit to a similar fiber glass operation (fiber glass boats) was arranged for the principals of this company to become familiar with the production procedures. Work was performed in locating suppliers of kraft paper, honeycomb systems, plastic hinges, and fiber glass chemicals.

Results: The company installed and put into operation the automatic fiber glass equipment recommended by IDD and expanded its production volume. No further assistance is needed, the project is closed.
General
The Lower Chattahoochee Economic Development District consists of seven counties, of which three are eligible Redevelopment Area counties: Clay, Quitman, and Randolph. The Growth Center is Columbus (Muscogee County).

New Projects
During the quarter no new projects were established in this area.

Ongoing Projects
There are now no projects under way in this area.

Discontinued Projects
None
PROJECTS OUTSIDE OF ECONOMIC DEVELOPMENT DISTRICTS

General
During the quarter two projects were active in counties outside of the Economic Development Districts.

New Projects
During the quarter one new project was established in this area.

Project 637: Assistance to an industrial development group in Cherokee County

**Nature of Problem:** The Chairman of this industrial development group has requested IDD assistance in developing plans for a 100 acre industrial park adjacent to the Canton airport.

**Work Performed:** IDD staff members have visited the proposed site for the industrial park and have discussed with representatives of the development group the information needed to develop a park layout and site brochures. Efforts are under way to secure assistance from the USDA soil conversation office, railroad companies, water departments, and chambers of commerce. The Federal Aviation Agency is also being contacted to determine the restrictions, if any, on the development of the proposed site since it is located adjacent to an airport.

**Results:** The project is continuing.

Ongoing Projects
There are now two projects under way in this area. In addition to the new project above, there is:

Project 630: Assistance to an individual in Cherokee County

**Nature of Problem:** An individual holding a patent on an automatic welding hood with automatically positioned eye shield requested IDD assistance in determining the best method of exploiting his patent.

**Work Performed:** Assistance is being rendered in determining the best method for marketing a product based upon this individual's patent. Information is being collected pertinent to the advantages of establishing a plant to manufacture the product versus subcontracting the manufacture of the product and marketing under a private brand.

**Results:** The project is continuing.

Discontinued Projects
During the quarter three projects were discontinued.

Project 602: Assistance to a wine manufacturer in Crawford County

**Nature of Problem:** This firm requested assistance in investigating the potential of processing onions and onion parts into onion juice and onion juice concentrate in order to diversity its product line and achieve year-round production in its facility.
Work Performed: This firm presently processes peaches, grapes, and apples into food concentrates, wine, and ethyl alcohol. Because of the seasonal nature of the processing, the plant is idle from December through June of each year. Data relative to the potential for processing onions and onion parts were collected and assembled into a market study. Because of the unfavorable market potential for products derived from onions, assistance was rendered in evaluating the feasibility of extracting oil from peach pits, now being dumped as a waste product. Assistance was rendered to this firm in making contacts with potential growers in order to increase the supply of grapes in the area.

Results: These contacts with growers resulted in the planting of demonstration vineyards in the three-county area surrounding the plant. No further assistance is needed at this time, the project is closed.

Project 608: Assistance to a modular housing manufacturer in Douglas County

Nature of Problem: This modular housing manufacturing firm requested assistance in developing a plant layout and design for the new facility.

Work Performed: A meeting was held with the principals of this firm to discuss the factors affecting plant layout for their facility. Subsequent to this meeting guidelines for the plant layout were established. The plant layout was completed and delivered to the company for implementation.

Results: Company officials have advised IDD that they have been unable to secure financing for this venture. No further assistance is needed, the project is closed.

Project 631: Assistance to an individual in Cobb County

Nature of Problem: A chemical engineer who has developed a process for reclaiming a plastic waste material requested assistance in securing funding for the development of his new process on a production scale.

Work Performed: A meeting was arranged at IDD's office between this individual and an investor who was seeking an opportunity to buy an interest in and participate in the management of a small company. This investor decided not to invest in this individual's new process and efforts were continued to find other sources of developmental financing.

Results: Due to the indefinite delay in securing developmental financing for this new process, the project is being closed.
V. Evaluation of Program Effort

In drawing conclusions about the program, it would not be difficult to overstate the impact of the work performed by IDD staff personnel on the individual projects; however, available information indicates some noteworthy results in the area of employment and jobs affected. A total of approximately 1,014 identifiable jobs have been created in firms assisted by IDD. Another 76 identifiable jobs have been created in expanding companies which were assisted. In the new ventures which were aided by IDD 70 new jobs either are being created or show definite promise of early establishment.

Conclusions regarding the overall impact of this program must be based upon a collective evaluation of the individual projects and their respective results. This evaluation should include not only a recognition of the fact that a deliberate attempt has been made to state the significance of IDD efforts in realistic terms, but also a consideration of the following special points concerning the results reported:

1. In many cases, the contributions of IDD staff personnel were major factors in management decisions to act or not to act on a specific plan of development. This was particularly true in those cases involving the development of new ventures.

2. In some situations, the end result would have been the same regardless of IDD participation. In such cases, IDD staff personnel helped to facilitate the achievement of an already determined goal.

3. In certain projects, IDD staff personnel filled a negative role by determining that a proposed course of action was not economically sound. The project staff felt that such actions, where they were taken, were in the best interests of all parties in the project. It is not enough to provide support for sound proposals; the unsound ones also must be identified.

Because of the preceding considerations, it is not practical to attempt to quantify results of this type program solely in terms of jobs created. Further, since it was the first program of its kind in a state-supported university, it is impossible to judge its merit on a comparative basis. It is necessary, therefore, to evaluate the program by empirical means. Several observations indicate that the management and technical assistance program to business and industry in Georgia has been beneficial:

1. After a modest start, the program has grown both in quantity of projects and in the comprehensiveness of the assistance offered. The program has been well received throughout Georgia and is being supported by the firms that have been assisted.

2. Consultants of all types have been kept apprised of Georgia Tech's management and technical assistance efforts and have worked in conjunction with IDD to further the program. All parties concerned seem to feel that the program is mutually beneficial.
3. Success of the original program has led to expansion of the project by the U. S. Department of Commerce's Economic Development Administration in Georgia and initiation of comparable programs by agencies in other states.

4. As a result of previous M&TA experience, IDD personnel provided counsel to the federal government in an effort to bridge the gap between the accumulated findings of governmental, education, and private research and the information needs of business and industry. This counsel eventually resulted in the passing of the State Technical Services Act of 1965.
BIOGRAPHICAL SKETCHES

EXHIBIT 3
WARD, WILLIAM C., JR.--Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education
B.S. in Industrial Management, Georgia Institute of Technology 1940
Command and General Staff College, Fort Leavenworth 1953
Senior Course, Marine Corps Schools 1956
Management School, Fort Belvoir 1961

Employment History
Southern Mercerizing Company, Supervisor 1932-1939
China Grove Cotton Mills, Foreman 1940
U.S. Marine Corps, Colonel 1940-1964
Dean Foods Company, General Manager 1964-1966
Georgia Institute of Technology
Research Scientist 1966-1971
Senior Research Scientist 1971-Present
Head, EDA Services Section, IDD, EES 1967-1970
Head, Applied Technology Group, IDD, EES 1970-1971
Head, Special Projects Branch, IDD, EES 1971-1972
Head, Industrial Services Branch, IDD, EES 1972-Present

Experience Summary: At Southern Mercerizing Company, performed at the supervisory level in mercerizing, skeining, coning, quilling, and shipping departments. Also superintendent of entire plant for one summer. At China Grove Cotton Mills, performed as foreman of carding department. In U.S. Marine Corps performed in various command and staff positions including: Chief of Staff, Third Marine Division -- supervised and coordinated entire general and special staff. Comptroller, Marine Corps Base -- staff responsibility for financial management, including accounting, budgeting, disbursing, data processing and financial administrative organization. Chief, Atomic Biological, and Chemical Section, Educational Center, Marine Corps Schools -- responsible for supervising and participating in instruction in Marine Corps Schools, Basic, Junior and Senior Courses. Industrial Relations Officer -- responsible for civilian personnel program including employment, employee relations, training, safety, payroll, and wage and classification divisions. As general manager of Dean Foods Company, managed and supervised management controls, purchasing, traffic, production and quality controls, personnel and all administrative functions. At Georgia Tech, directed IDD's overall operations in EDA matters; provided management and technical assistance to industry as required. Directed IDD's overall operations in Housing Resources matters and overall activities of Special Projects Branch. Presently directs the activities of Industrial Services Branch.

Current Fields of Interest
All aspects of management and technical assistance to industry.

Major Reports and Publications
9. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, March 1968, coauthor
11. "Economic Impact of Proposed Water and Sewerage System Improvements on Roberta, Georgia," EDA Special Report, April 1968, coauthor
12. "Impact of Proposed Sewer Improvements on the City of Waycross and Ware County," EDA Special Report, April 1968, coauthor
BIOGRAPHICAL SKETCH

TAYLOR, HARDY S.--Assistant Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

University of Alabama, B.S. Business Administration and Pre-Law 1943
Harvard Graduate School of Business Administration 1944
University of Nebraska, Graduate School of Business Organization 1951
Defense Department Comptrollership School, Washington, D.C. 1955

Employment History

National Southern Products, Inc., Tuscaloosa, Alabama, Research Assistant 1943
Turco Products, Inc., Atlanta, Georgia, Representative and Field Engineer 1943-1964
U.S. Navy, Supply and Fiscal Officer/Comptroller 1964-1966
Gladwin Industries, Inc., Atlanta, Georgia, Treasurer (Controller) 1966-1972
Georgia Institute of Technology
Research Scientist 1972-Present
Senior Research Scientist 1968-Present
Head, Management and Technical Assistance Section 1970-Present
Head, EDA Services Section 1970-Present
Assistant Head, Industrial Services Branch, IDD, EES 1970-Present

Experience Summary: As the Assistant Head of the Industrial Services Branch, is responsible for directing the overall IDD program of management and technical assistance and EDA services to Georgia industry. Served as treasurer of a locally-based national corporation, primarily a manufacturer for the telephone industry, and was responsible for accounting and financial management, office administration and sales maintenance services, purchasing, customer relations and local sales, personnel administration, print shop operations and sales catalog maintenance. Served as a member of the board of directors of several corporations with national and international sales distribution. In 1964 completed twenty years in U.S. Navy as top departmental executive with experience in all phases of business and financial management with special emphasis on Controllship, which consisted of budgeting and internal auditing; and Supply and Fiscal operations consisting of: accounting and payroll, office administration and personnel management and training, procurement and contract negotiation and administration, inventory management, warehousing, traffic operations, quality control, industrial safety, and property disposal. Assisted in the development of, and in charge of implementation of, a new Inventory Management concept at the Naval Aviation Supply Office, which is the world wide inventory control point for all Naval Aviation spare parts and material. This concept was based on the maximum utilization of the latest Electronic Data Processing equipment and it resulted in the greatest advancement in the management of aviation material during the past several years. Served as Supply and Fiscal Office/Comptroller at several Naval Air Stations and directed a working staff of 75 to 300 civilian personnel. As the first U.S. Naval representative in Sicily, negotiated at the highest governmental levels in Sicily and in Rome in arriving
at agreements and procedural methods for operation of a U.S. Naval Air Sta-
tion. Additionally, recruited, interviewed, selected and hired the initial
group of 100 civilian personnel. Also negotiated and approved contracts for
procurement of equipment, supplies and services from European sources to pro-
vide complete support for a station population of 1,800 people. Developed
the idea and published a catalog in connection with a Simplified Issue Pro-
cedure for General Stores Material. This idea has been further developed
and is widely used throughout the Naval Supply System.

Current Fields of Interest

All phases of area development activity, including industrial and community
development, financial and inventory management, and management development.

Major Reports and Publications

1. Published a catalog in connection with a Simplified Issue Procedure for
   General Stores Material
2. Author of numerous published company studies; procedural systems manuals;
   and operational plans
3. "Impact of Proposed Water and Sewerage System on Blakely, Georgia," EDA
   Special Report, February 1967 (coauthor)
4. "Economic Impact of a Proposed Water Storage Tank on Tennille, Georgia,"
   EDA Special Report, April 1967
5. "Economic Impact of Proposed Water and Sewerage System on Cleveland,
   Georgia," EDA Special Report, May 1967 (coauthor)
6. "Simplified Inventory and Cost Control System for a Small Manufacturer,"
   EDA Special Report, June 1967
7. "Economic Impact of Proposed Water and Sewerage System Improvements on
   Warrenton, Georgia," EDA Special Report, September or December 1967
8. "Economic Impact of Proposed Water and Sewerage Systems Improvements on
   Madison, Georgia," EDA Special Report, April 1968
9. "Economic Impact of the Proposed I-20 Regional Industrial Park at Camak,
   Georgia," EDA Special Report, January 1968
10. "Economic Impact of a Proposed Industrial Park to be Located In Swainsboro,
    Georgia," EDA Special Report, January 1968 (coauthor)
    in Swainsboro, Georgia," EDA Special Report, February 1968 (coauthor)
12. "Economic Impact of a Proposed Industrial Park to be Located in Milledge-
    ville, Georgia," EDA Special Report, February 1968
13. "Economic Impact of Proposed Water and Sewerage Systems Improvements on
    the City of Sylvester and Worth Coutny, Georgia," EDA Special Report,
    March 1968 (coauthor)
14. "Economic Impact of Proposed Sewerage System Improvements on Camilla,
    Georgia," EDA Special Report, March 1968 (coauthor)
15. "Economic Impact of Proposed Water and Sewerage Systems Improvements on
    Gibson, Georgia," EDA Special Report, April 1968 (coauthor)
16. "Economic Impact of a Proposed Industrial District to be Located in Rich-
    mond County, Georgia," EDA Special Report, May 1968 (coauthor)
    Georgia Tech Annual Report, August 1968 (coauthor)
Major Reports and Publications (continued)

BETHEA, EDWIN A. -- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S., Knoxville College 1953
M.S.W., Howard University 1962
Certificate of Completion, Howard University's Small Business Guidance Center 1969

Employment History

District of Columbia, Department of Public Welfare, Caseworker, Child Welfare Division 1962-1965
Far East Community Services, Inc., Community Organizer-Youth Community Organizer 1965-1966
United Planning Organization, Community Organization Specialist (training officer), Economic Development Specialist 1966-1968
Youth Enterprises, Inc., Executive Director 1968-1970
Volunteers for International Technical Assistance, Director-Washington, D. C.; Director-East Central Regional Office 1970-1972
Consultant Employers
Office of Economic Opportunity; Manpower Assistance Project Inc.; University Research Corp.; Xerox Corporation; Commerce Department, Economic Development Administration. Georgia Institute of Technology, Research Scientist 1972-Present

Experience Summary: Directed a regional office for technical assistance that provided services to minority and economically disadvantaged groups in mid Atlantic region; this entailed establishing, structuring, and supervising new program offices in several states within the region. Program developer for minority economic ventures and community development project; the responsibilities included establishing a working relationship with community groups, federal, state and local government agencies and/or private agencies whose interests were similar. Organized and managed a minority firm for the purpose of establishing "spin-off" business ventures and the training of minority entrepeneurs. Managed and developed programs aimed toward helping groups initiate and implement economic and social changes in their community such as employment practices, bureaucratic procedures, etc. Assisted quasi government and government department directors in community planning. Developed and directed programs relating to youth activities in the areas of training, proposal development, community improvement and change and economic developments.

Current Fields of Interest

Minority business development, industrial and community development, manpower management and motivation, transportation and new economic systems.
CHIANG, TZE I.--Senior Research Economist, Industrial Development Division, Engineering Experiment Station

Education

B.A. in Agricultural Economics, Fukien Christian University 1946
M.S. in Agricultural Economics, Oklahoma State University 1955
Cornell University 1957 (Summer)
Ph.D. in Agricultural Economics, University of Florida 1958

Employment History

Junior high school teacher, Foochow, China 1946-1947
China Textile Industries, Inc. 1947-1953
Oklahoma State University, Graduate Assistant 1954-1955
University of Florida, Research Assistant 1955-1958
Georgia Institute of Technology
Assistant Research Economist 1958-1962
Research Economist 1963-1964
Senior Research Scientist 1965-Present

Experience Summary: Began as a teacher in a junior high school in 1946. Joined the China Textile Industries, Inc., in 1947, and rose gradually to the position of Assistant to the General Manager in 1953. At Oklahoma State University, accepted a graduate assistantship in collecting and analyzing data related to land value and the cattle business. Enrolled in the University of Florida in 1955 and was appointed Research Assistant, working on own dissertation in regard to a marketing study of Florida ferns. At Georgia Tech, has dealt mainly with feasibility studies on various industries which show potential as manufacturing opportunities in Georgia.

Current Fields of Interest

Manufacturing feasibility studies.

Major Reports and Publications

7. "Lumber and Wood Products, Furniture and Fixtures" (Studies of Selected Industries in the Southeast River Basins, Section 4), Georgia Tech Report, March 1961
Major Reports and Publications (continued)

11. "Evaluation of Agriculturally Oriented and Wood-Based Manufacturing Opportunities in Carroll County, Georgia," Georgia Tech Report, February 1964, coauthor
DIAMOND, HARVEY--Senior Research Engineer, Industrial Development Division, Engineering Experiment Station

Education
St. Johns University
B.S. in Textile Engineering, North Carolina State College 1941-1942 1942-1946

Employment History
Cohn-Hall-Marx, Converter and Assistant Designer 1946-1947
American Woolen Company, Designer and Assistant Buyer 1947-1950
Dux Mixture Hardware Company, Partner 1950-1960
Georgia Institute of Technology
Assistant Research Engineer 1960-1965
Research Engineer 1965-1967
Senior Research Engineer 1967-Present

Experience Summary: Economic feasibility studies; plant location analyses; market research to identify manufacturing and nonmanufacturing business opportunities; raw materials and intermediate products availability studies; liaison with prospects on industrial location possibilities; evaluation and development of area resources; transportation studies; management and technical assistance to prospective and established business; product diversification studies; manpower resources; industrial economic analyses; purchasing and marketing of hardware, wholesale and retail; textile designing; textile converting. Coeditor of monthly metalworking bulletin.

Current Fields of Interest
Market analyses; plant location criteria; economic feasibility analyses.

Major Reports and Publications
Major Reports and Publications (continued)

12. "Mobile Homes in Georgia: A Study of the Personal Property Taxes Levied on Mobile Homes in the Metropolitan Areas of Georgia and the Significance of the Mobile Home Industry to the State," Georgia Tech Report, February 1965, coauthor


WOMMACK, CHARLES C.--Assistant Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S.I.M., Georgia Institute of Technology 1963

Employment History

A. O. White, Jr., Engineer, Draftsman 1960 (summer)
Daniel, Manning, Johnson and Mendenhall, Land Surveying 1961 (summer)
Great Books Inc., Salesman 1962 (summer)
Georgia Power Company, Merchandise Sales Representative 1963-1964
U. S. Army, Battalion Supply Officer (S-4) 1964-1966
Atlantic Company, Branch Manager (ice) 1966-1967
Georgia Institute of Technology Assistant Research Scientist 1967-Present

Experience Summary: Duties as a battalion supply officer included administer­ing and supervising the unit motor pool and requisitioning all types of sup­plies for the support of the unit mission. Duties as Branch Manager with Atlantic Company included the day-to-day operation of an ice manufacturing plant, recruiting and training personnel, supervision of equipment and vehicle maintenance, sales promotion, customer relations, budgeting and cost control. Initial work at Georgia Tech was in connection with an economic development project in the Atlanta Model Neighborhood area which had as its objectives the identification of economic development potentials in the area, the identification of ways to exploit these development potentials, and the reporting of the results of research findings to the City of Atlanta. Recent work has included participation in an economic development program in Valencia, Venezuela, which included identification and evaluation of new manufacturing opportunities and the establishment of a program of management and technical assistance to small and medium-size businesses in Venezuela.

Current Fields of Interest

All areas of economic development, especially those dealing with the economic problems connected with urban and rural poverty; upgrading productivity and Latin American economic development.

Major Reports and Publications

4. "Economic Impact of the Proposed Vocationa-Industrial Training Center to be Located in Monroe, Walton County, Georgia," Special EDA Report, March 1969, coauthor
10. "La Fabricacion de Aisladores de Porcelana en Venezuela," Report of the University of Carabobo (in Spanish), 1971, coauthor
PARETS, GASTON A.—Head, International Operations Section, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Engineering, with emphasis in Industrial Processes and Operations, and Computer Sciences. Minor in Mathematics, University of Miami 1966
Master of Business Administration with a major in International Business. Emphasis in International Economics, Finance and Trade, Georgia State University 1968

Employment History

Johnston Automatic Controls, Coral Gables, Florida 1964-1966
Assistant Engineer and Technical Draftsman
Ford Motor Company, Automotive Assembly Division, Hapeville, Georgia 1966-1967
Process Engineer
Manufacturing Engineer "A" 1968-1969
Georgia Institute of Technology, Industrial Development Division, Engineering Experiment Station 1970-Present
Research Engineer
Head, International Operations Section 1971-Present

Experience Summary: While associated with Johnston Controls, worked as a technical draftsman and assisted project engineers in projects related with the design and installation of refrigeration and heating automatic control systems. During employment with Ford, responsibilities were wide ranged, including quality control, tool design, cost reduction, and the solution of problems, both of human and technical nature. At Georgia Tech, the activities consist in the preparation, execution and follow-up of industrial development projects in Latin America, with heavy administrative work as head of one of the Division's Sections. This assignment involves heavy traveling throughout South America. During the last year, activities included three months of technical assistance to the Industrial Development Office of the University of Carabobo in Venezuela and direct involvement in the Industrial Development Program of the government of Paraguay and technical assistance to the Development and Productivity Center, also in Paraguay.

Major Reports and Publications

1. "Footwear Manufacturing Advantages of a Georgia location," Georgia Institute of Technology, 1970
3. "Industrial Profile of the City of San Felipe, Venezuela," 1971
4. "Feasibility Studies in Industries such as Alcohol, Marble Mining and Processing, Lumber, Meat Freezer, and Slaughterhouse, as well as other Minor Industries," 1971

Current Fields of Interest

International economic development, social, economic and other specialized studies as they relate to economic development.
POTTS, PHILLIP W.-- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1962
M.B.A. in Marketing, Georgia State University 1968

Employment History

U. S. Army 1955-1958
Georgia Institute of Technology, Student 1958-1962
General Motors, Accountant 1962-1964
St. Regis Paper Company, Production Department Head, Sales Coordinator, Production Coordinator 1964-1972
Georgia Institute of Technology Research Scientist 1972-Present

Experience Summary: Served three years in U. S. Army Intelligence, traveling extensively throughout Europe. Employed by General Motors in accounting functions of payrolls, accounts payables, accounts receivables, and standard costing. Held various positions with St. Regis Paper Company from production department head to sales coordinator and production coordinator, being responsible for supervision of several hundred production personnel, quality control, production scheduling, inventory control, shipping and receiving efficiency, purchasing, customer service, and implementation of systems for changing production and financial records from manual calculation to EDr.

Current Fields of Interest

All aspects of industrial management.
This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 26th day of June 1972.
# Chart 3

**Regional Economic Development Center Activity Report**

*March 1, 1973 to May 31, 1973*

<table>
<thead>
<tr>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Venture</th>
<th>Community Development</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON GOING (BEGINNING)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>9</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>NEW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISCONTINUED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON GOING (ENDING)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL ACTIVE DURING QUARTER 4

<table>
<thead>
<tr>
<th>Previous</th>
<th>Current</th>
<th>Previous</th>
<th>Current</th>
<th>Previous</th>
<th>Current</th>
<th>Previous</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>14</td>
<td>29</td>
<td>29</td>
</tr>
</tbody>
</table>

**Percentage of Effort as measured by Cost**

<table>
<thead>
<tr>
<th></th>
<th>This Period</th>
<th>Previous Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Stabilization</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Business Expansion</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>New Venture</td>
<td>49</td>
<td>52</td>
</tr>
<tr>
<td>Community Development</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

* Cost is interpreted to mean Budget Cost for Period of Reporting.
### Chart 4

**Summary of Project, Activity by Type and Subregion**

<table>
<thead>
<tr>
<th>Subregion</th>
<th>New Venture</th>
<th>Business Expansion</th>
<th>Business Stabilization</th>
<th>Community Development</th>
<th>Current Costs % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTRAL SAVANNAH RIVER EDD</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>COASTAL PLAIN EDD</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>GEORGIA MOUNTAINS EDD</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>HEART OF GEORGIA EDD</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>NORTHEAST GEORGIA EDD</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OCONEE AREA EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SLASH PINE EDD</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>SOUTHWEST GEORGIA EDD</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>MIDDLE FLINT EDD</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>CHATTAHOOCHEE-FLINT EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>COASTAL AREA EDD</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>LOWER CHATTAHOOCHEE EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PROJECTS OUTSIDE EDD'S</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>14</strong></td>
<td><strong>10</strong></td>
<td><strong>4</strong></td>
<td><strong>1</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
### Chart 5

**JOB IMPACT SUMMARY**

<table>
<thead>
<tr>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Ventures</th>
<th>Community Econ. Develop.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
<td><strong>Actual</strong></td>
<td><strong>Goal</strong></td>
<td><strong>Actual</strong></td>
<td><strong>Goal</strong></td>
</tr>
<tr>
<td>CENTRAL SAVANNAH RIVER EDD</td>
<td>Not Estb.</td>
<td>24</td>
<td>Not Estb.</td>
<td>20</td>
</tr>
<tr>
<td>COASTAL PLAIN EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>40</td>
</tr>
<tr>
<td>GEORGIA MOUNTAINS EDD</td>
<td>&quot;</td>
<td>30</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>HEART OF GEORGIA EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>NORTHEAST GEORGIA EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>OCONEE AREA EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>SLASH PINE EDD</td>
<td>&quot;</td>
<td>960</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>SOUTHWEST GEORGIA EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>MIDDLE FLINT EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>16</td>
</tr>
<tr>
<td>CHATTahoochee-FLINT EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>COASTAL AREA EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>LOWER CHATTahoochee EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
</tr>
<tr>
<td>PROJECTS OUTSIDE EDD'S</td>
<td>&quot;</td>
<td>—</td>
<td>&quot;</td>
<td>—</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,104</strong></td>
<td><strong>76</strong></td>
<td><strong>70</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>
Map 1

AREA PLANNING AND DEVELOPMENT COMMISSION BOUNDARIES AND BRANCH OFFICES
OF GEORGIA TECH'S INDUSTRIAL DEVELOPMENT DIVISION

1. ALTAMAHA – GEORGIA SOUTHERN
2. ATLANTA METROPOLITAN
3. CENTRAL SAVANNAH RIVER
4. CHATTahoochee—FLINT
5. COASTAL
6. COASTAL PLAIN
7. COOSA VALLEY
8. GEORGIA MOUNTAINS
9. HEART OF GEORGIA
10. LOWER CHATTahoochee
11. MCIINTOSH TRAIL
12. MIDDLE FLINT
13. MIDDLE GEORGIA
14. NORTH GEORGIA
15. NORTHEAST GEORGIA
16. OCONEE
17. SLASH PINE
18. SOUTHWEST GEORGIA

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology

-32-
Map 2

ECONOMIC DEVELOPMENT DISTRICTS

1. Georgia Mountains EDD
2. Northeast Georgia EDD
3. Central Savannah River EDD
4. Oconee EDD
5. Heart of Georgia EDD
6. Coastal Plain EDD
7. Slash Pine EDD
8. Coastal EDD
9. Southwest Georgia EDD
10. Middle Flint EDD
11. Chattahoochee-Flint EDD
12. Lower Chattahoochee EDD

Approved County
Project No. A-1438
Grant No. 04-6-09029-7

A PROGRAM OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED COUNTIES IN GEORGIA

by
William C. Ward, Jr.
Hardy S. Taylor
Charles C. Wommack

INDUSTRIAL DEVELOPMENT DIVISION

Quarterly Report
June, July, and August

1973

Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
Atlanta, Georgia
A PROGRAM
OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED EDA COUNTIES IN GEORGIA

Quarterly Report
June, July, and August
by
William C. Ward, Jr.
Senior Research Scientist
Hardy S. Taylor
Senior Research Scientist
Charles C. Wommack
Assistant Research Scientist

This technical assistance study was accomplished by professional consultants under contract with the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the contractor and do not necessarily reflect the views of the Economic Development Administration.

Industrial Development Division
Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
September 1973
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>I.</th>
<th>BACKGROUND INFORMATION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Economic Characteristics of Service Area</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B. Organization and Establishment of Center</td>
<td>1</td>
</tr>
<tr>
<td>II.</td>
<td>PROGRAM ADMINISTRATION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>A. Program Objectives</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B. Technical Assistance Service</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>C. Project Personnel</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>D. Phasing of Work Program</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>E. Relationship to Other Development Efforts</td>
<td>1</td>
</tr>
<tr>
<td>III.</td>
<td>STRATEGY FOR SUBREGIONS</td>
<td>2</td>
</tr>
<tr>
<td>IV.</td>
<td>TECHNICAL ASSISTANCE PROJECTS</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>A. Location</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>B. Highlights of Project Activity</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>C. Project Summaries</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Central Savannah River Economic Development District</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Coastal Plain Economic Development District</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Georgia Mountains Economic Development District</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Heart of Georgia Economic Development District</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Northeast Georgia Economic Development District</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Oconee Area Economic Development District</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Slash Pine Area Economic Development District</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Southwest Georgia Economic Development District</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Middle Flint Economic Development District</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Chattahoochee-Flint Economic Development District</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Coastal Area Economic Development District</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Lower Chattahoochee Economic Development District</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Projects Outside of Economic Development Districts</td>
<td>25</td>
</tr>
<tr>
<td>V.</td>
<td>EVALUATION OF PROGRAM EFFORT</td>
<td>28</td>
</tr>
</tbody>
</table>

**EXHIBITS**

1. Organization Chart - Georgia Institute of Technology 30
2. Organization Chart - Industrial Development Division 31
3. Biographical Sketches 32
CHARTS

1. Economic Characteristics of EDA - Designated Counties - Georgia (Reported only in the first quarterly and final reports)

2. Waived

3. Regional Economic Development Center Activity Report

4. Summary of Project Activity by Type and Subregion

5. Job Impact Summary

MAPS

1. Area of Field Office Responsibility

2. Economic Development Districts

3. EDA Counties and EDD's as of 1 July 1973
I. Background Information

A. Economic Characteristics of Service Area

To be reported only in the first quarterly progress report and the final report.

B. Organization and Establishment of Center

To be reported only in the first quarterly progress report and the final report.

II. Program Administration

A. Program Objectives

To be reported only in the first quarterly progress report and the final report.

B. Technical Assistance Services

To be reported only in the first quarterly progress report and the final report.

C. Project Personnel

To be reported only in the first quarterly progress report and the final report.

D. Phasing of Work Program

This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 26th day of June 1972.

E. Relationship to Other Development Efforts

In furthering the EDA objectives in Georgia, the Industrial Development Division works closely with representatives of the following organizations:

Georgia State Office of Planning and Budget - Georgia Department of Community Development - Economic Development Districts - Area Planning and Development Commissions - Chambers of Commerce - local Industrial Development groups - Coastal Plains Regional Commission - Small Business Administration - EDA Economic Development Representatives.

Particular attention is directed to working with the EDD's and APDC's on individual projects. When an assistance project is opened these organizations are notified that IDD will be working in their area and a monthly progress report of activity on projects within their area is furnished.

Cooperation with the above mentioned organizations is enhanced by IDD activities other than EDA within the state wherein IDD personnel are in almost constant contact with these groups.
III. Strategy for Subregions

To be reported only in the first quarterly progress report and the final report.

IV. Technical Assistance Projects

A. Location

Map 3 identified the counties in which work was performed under the program and indicates the number of projects conducted in each county.

B. Highlights of Project Activity

Chart 3 summarizes the highlights of project activity by major program categories. Chart 4 summarizes the project activity by type and subregion to indicate the distribution of effort throughout the state. Chart 5 summarizes the project activity by type and subregion to indicate the job impact.

The following projects were selected for special mention:

Project 632: A metal fabricating firm in Screven County requested assistance in plant layout and assembly line design for the production of wrecker bodies for small trucks. Information and assistance was also requested on painting processes and on safety regulations relating to these painting processes. In visits to this company, the IDD staff provided information on sources of supply for painting equipment and painting service. A suggested plant layout and assembly line design was prepared and provided to the company. Data on improved welding methods was also supplied. In recent contacts with company officials, it was found that a substantial backlog of orders is now on hand and that production is proceeding efficiently.

Project 638: The president of this firm requested IDD assistance in analyzing the company's personnel procedures and policies in order to reduce the high turnover being experienced in its work force. A meeting with the management of this firm revealed that since 1967 the work force has grown from 424 employees to the current level of nearly 1,000 employees. In analyzing the problem, it was discovered that the primary cause of the work force turnover was the explosive growth and expansion of the company. During the visit to the plant, many recommendations and suggestions were made to management and they expressed the intention of implementing these suggestions immediately. A written report detailing the suggestions has been prepared and forwarded to the company management. In recent contacts with this company, officials indicated that good progress is being made in resolving problems in personnel policies and procedures.
C. Project Summaries

The 42 individual projects which were active during the quarter under the project of Management and Technical Assistance to businesses, industrial firms, and communities in designated Georgia counties are listed by Economic Development Districts and described on the following pages. These summary descriptions include an identification of the work performed, and a statement of the results achieved. The 34 projects which were still active as of August 31, 1973 are listed under "Ongoing Projects" in each EDD.
General

The Central Savannah River Economic Development District consists of thirteen counties, of which four are eligible Redevelopment Area counties: Burke, Emanuel, Taliaferro, and Wilkes. The Growth Centers are Augusta (Richmond County) and Swainsboro (Emanuel County).

New Projects

During the quarter four new projects were established in this area.

Project 646: Assistance to a knit wear manufacturer in Wilkes County

Nature of Problem: This firm is experiencing a severe materials handling problem in its shipping department. Assistance has been requested in making improvements in the shipping department in order to improve efficiency.

Work Performed: An IDD staff member has visited this company to study present methods used in the shipping department and to discuss problem areas with company officials. Information on improved materials handling methods has been requested from several sources and will be studied and provided to company management with recommendations on which methods seem to be most applicable to the problem at hand.

Results: The project is continuing.

Project 655: Assistance to a tool and die shop in Burke County

Nature of Problem: The owner of this well-equipped tool and die shop requested IDD assistance in identifying a product which he could produce with his existing equipment and unskilled workers. This diversification is desirable in order to reduce the owner's reliance on his limited number of customers for tool and die work.

Work Performed: An IDD staff member has visited this company to determine the capabilities of the equipment and work force in order to establish parameters for the new product search. The information collected in this visit has been summarized and is being used in the search for an appropriate new product.

Results: The project is continuing.

Project 659: Assistance to a metal products manufacturer in Jefferson County

Nature of Problem: This firm which began operations one year ago has requested assistance in improving plant production efficiency in order to meet increasing demand for its products.

Work Performed: Work has been started in developing an improved plant layout for the existing operations in order to achieve better equipment utilization and
to reduce materials handling problems. An analysis of production methods is also being made in order to insure that the most efficient method is being used.

Results: The project is continuing.

Project 660: Assistance to a mobile home manufacturer in Augusta, Georgia (Growth Center)

Nature of Problem: The management of this new mobile home plant requested IDD assistance in developing a revised plant layout and production methods improvement.

Work Performed: A drawing has been made of the existing plant layout for use in developing suggested revisions. A new layout is being designed including suggested improvements in work station design in order to increase worker productivity and reduce materials handling.

Results: The project is continuing.

Ongoing Projects

There are now the four new projects above under way in this area.

Discontinued Projects

During the quarter three projects were discontinued.

Project 632: Assistance to a metal fabricating company in Screven County

Nature of Problem: This firm has recently built a new building and has requested assistance in plant layout and assembly line design for the production of wrecker bodies for small trucks. Information and assistance were also requested on spray dip painting and OSHA regulations on painting processes.

Work Performed: Two visits have been made to this new plant by IDD personnel. Information has been provided on the availability of painting services in Atlanta, as well as information on paint manufacturers' representatives who could be contacted. Plant layout assistance and assistance in assembly line design have been initiated. Information on improved welding methods has also been provided to the company.

Results: This company has recently advised IDD that it has a substantial backlog of orders and that no additional assistance is needed at this time.

Project 633: Assistance to a railroad equipment repair shop in Augusta, Georgia (Growth Center)

Nature of Problem: This firm requested assistance in resolving difficulties in the paperwork involved in its job shop cost accounting system.

Work Performed: An IDD staff member spent two days in this firm's plant studying the procedures in use and the control systems required for the cost
accounting process. Based upon the observations made during this study recommendations have been formulated in a report to the company on how it can improve its timekeeping and cost accounting procedures. Company management is now studying the recommendations made in the report in an attempt to simplify the approach and adapt the recommendations to their specific operation procedures.

Results: Company management has advised IDD that an industrial engineer has been employed and that the recommendations made are being implemented. No further assistance is needed, so the project is closed.

Project 636: Assistance to an individual investigating a new venture in fiber glass boat manufacturing in Augusta, Georgia (Growth Center)

Nature of Problem: This individual requested assistance from IDD in securing information on fiber glass fabrication and other technical aspects of fiber glass boat manufacture.

Work Performed: The IDD staff has assembled a list of publications and has written, in memorandum form, an outline of suggested steps to take in this individual's study of the feasibility of entering into the manufacture of fiber glass boats. This individual has now progressed to the development of a prototype of the boat he plans to manufacture and IDD has provided information on techniques and equipment used in making a prototype fiber glass boat.

Results: The individual being assisted in this new venture has recently moved out of the area and, therefore, the project is being closed.
COASTAL PLAIN ECONOMIC DEVELOPMENT DISTRICT

General

The Coastal Plain Economic Development District consists of ten counties, of which four are eligible Redevelopment Area counties: Brooks, Cook, Lanier, and Ben Hill. The Growth Centers are Valdosta (Lowndes County) and Tifton (Tift County).

New Projects

During the quarter two new projects were established in this area.

Project 644: Assistance to a food service company in Brooks County

**Nature of Problem:** This company supplies prepared portion controlled lunches to institutional customers. Assistance has been requested in improving the plant layout including work station design and product flow.

**Work Performed:** Preliminary work has been done on developing a plant layout for this company's planned expansion. Work areas have been designated and product flow detailed for the preparation of the plant layout which will be provided to the firm.

**Results:** The project is continuing.

Project 657: Assistance to a hand craft cooperative in Valdosta, Georgia (Growth Center)

**Nature of Problem:** This cooperative has established a local outlet for its products and has requested IDD assistance in developing a marketing program in order to distribute its products outside south Georgia.

**Work Performed:** A survey of retailers in Atlanta dealing in hand crafted items has been made in order to determine the acceptability of the products produced by this cooperative and to determine the normal trade and distribution practices used by marketers of similar items. A summary report of the findings of this survey is being prepared and will be forwarded to the company with recommendations for developing a marketing program.

**Results:** The project is continuing.

Ongoing Projects

There are now three projects under way in this area. In addition to the two new projects above, there is:

Project 640: Assistance to a door and window manufacturer in Valdosta, Georgia (Growth Center)

**Nature of Problem:** This firm has requested assistance in several aspects of planning a new facility for its operations. This new facility is needed because the present plant is too small to accommodate the current level of operation and thus makes it impossible to increase production to meet the recent growth in sales.
Work Performed: In several meetings with company officials, the IDD staff has assisted in developing the building plan, site plan, fire protection plan, and has discussed the over-all building size needed and the location of supporting columns within the production area. Information has also been collected and supplied to the company on sprinkler systems and insurance rates for the planned facility. Assistance is now being given in developing a detailed plant layout for the new building which will assure efficient use of the available space. Information has also been collected and forwarded to the company on recommended heating and air conditioning equipment for the new building.

Results: The project is continuing.

Discontinued Projects

None.
The Georgia Mountains Economic Development District consists of 13 counties, of which six are eligible Redevelopment Area counties: Dawson, Forsyth, Towns, Union, White, and Rabun. The Growth Centers are Gainesville (Hall County) and Toccoa (Stephens County).

**New Projects**

During the quarter one new project was established in this area.

**Project 647: Assistance to an industrial development authority in Habersham County**

**Nature of Problem:** This industrial development authority has requested assistance in developing plans for a new 37 acre industrial park in Baldwin, Georgia.

**Work Performed:** A meeting is planned with representatives of this development group to discuss their plans for the industrial park and to collect data on the characteristics of the site for the park.

**Results:** The project is continuing.

**Ongoing Projects**

There are now two projects under way in this area. In addition to the new project above, there is:

**Project 634: Assistance to a broom manufacturing company in Habersham County**

**Nature of Problem:** The president of this firm requested IDD assistance in evaluating possible alternatives to wooden broom handles. He specifically requested assistance in investigating the possibility of using plastic broom handles.

**Work Performed:** An initial investigation into the costs of producing plastic broom handles indicates that plastic handles would be considerably more expensive than the wooden handles currently being used. Other possible materials for broom handles are being investigated. An investigation is also being made into the possibility of finding a lower cost source of wood handles.

**Results:** The project is continuing.

**Discontinued Projects**

During the quarter one project was discontinued in this area.
Project 615: Assistance to a cooperative in Gainesville, Georgia (Growth Center)

Nature of Problem: A group of individuals has formed a cooperative for the production and processing of rabbits and has requested assistance in preparing a market study on the market for rabbit meat and by-products.

Work Performed: A meeting has been held with the manager of this group to discuss the various points to be covered in the proposed market study. The market study has now been completed and mailed to the manager of the cooperative. Additional assistance to this cooperative is pending a response from the manager.

Results: In recent contact with the manager of this cooperative, it was found that production and processing of rabbits is underway and that they are being marketed through a food brokerage firm in Atlanta. No further assistance is needed, so this project is closed.
HEART OF GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General

The Heart of Georgia Economic Development District consists of nine counties, of which four are eligible Redevelopment Area counties: Dodge, Pulaski, Treutlen, and Telfair. The Growth Center is Dublin/East Dublin (Laurens County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now two projects under way in this area.

Project 567: Assistance to a proposed sand mining and processing operation in Montgomery County

Nature of Problem: A group of individuals who own a deposit of high quality glass sand has requested assistance in determining the potential market for processed sand.

Work Performed: The IDD staff has prepared and presented to the management of this firm a market research report on the market for construction sand within a 100-mile radius of Mt. Vernon, Georgia (location of the sand deposit). The owners have recently advised IDD that they were successful in obtaining an SBA 502 loan for the construction of a facility to process the sand. Construction of the new facility is underway and information has been provided by IDD on design criteria for a settling pond to be used in the company's water pollution control efforts. Equipment has been ordered and plant layout and design plans are underway. At the request of management, information has been collected and provided to the company for their use in evaluating whether to buy or lease their fleet of trucks. Information has also been collected on pricing practices of sand processors in Georgia.

Results: The project is continuing.

Project 613: Assistance to a lumber mill in Telfair County

Nature of Problem: The president of this company has requested assistance in resubmitting an EDA loan application in order to secure the funds required for acquiring and completing the lumber mill complex at Lumber City, Georgia.

Work Performed: A presubmission conference has been held with the EDA field representative, IDD staff, and principals of the company. In a visit to the company, the principals requested technical information on kiln drying of lumber. The technical information was mailed to the company. Company officials have recently informed IDD that their planned expansion is under way and will be internally financed; therefore, no EDA loan will be needed. Additional assistance was requested in certain technical aspects of the plant expansion and IDD staff members are working with company officials to resolve these technical matters.
Results: The project is continuing.

Discontinued Projects

During the quarter, one project was discontinued in this area.

Project 622: Assistance to a golf ball manufacturer in Montgomery County

Nature of Problem: This company's existing plant facility is too small and the decision to delay a move to a larger plant has been re-evaluated and now plans are to proceed immediately with a move to a larger facility which has recently been acquired in Uvalda, Georgia.

Work Performed: Work has been completed on developing a suggested plant layout for the 11,000 square foot school building recently purchased by this company. Evaluation and recommendations have been formulated and presented to the company on materials handling equipment and procedures for the new facility.

Results: This company has been provided all the assistance needed for evaluating and preparing for their relocation to a new plant; therefore, the project is closed.
NORTHEAST GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General

The Northeast Georgia Economic Development District consists of ten counties, of which one is an eligible Redevelopment Area county: Madison. The Growth Center is Athens (Clarke County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There is now one project under way in this area.

Project 629: Assistance to a new venture in the manufacture of prefabricated homes in Madison County

Nature of Problem: Two individuals currently operating a general contracting firm contacted IDD for assistance in evaluating the feasibility of establishing a prefabricated home operation in Ila, Georgia.

Work Performed: Several meetings have been held with the principals as well as with potential investors regarding the establishment of a prefabricated home manufacturing operation. Preliminary cash flow projections for the first year of operation have been prepared and checked for accuracy by the two principals. Negotiations are under way with the investors who plan to build and lease the building to the principals of this new venture. During consultations with the investors it was decided to seek a lease guarantee from the Small Business Administration. The market study and financial projections required for the lease guarantee application were completed by the IDD staff and submitted with the application. The lease guarantee was approved by SBA and construction of the plant was expected to begin within the next month. IDD has been informed by the principals of this new company that the mortgage company which was to finance the building has now advised them that due to high interest rates and shortage of lendable funds that they will be unable to finance the building. Assistance will be rendered in locating an alternative source of funding.

Results: The project is continuing.

Discontinued Projects

None.
General

The Oconee Area Economic Development District consists of seven counties, of which one is an eligible Redevelopment Area county: Hancock. The Growth Center is Milledgeville (Baldwin County).

New Projects

During the quarter one new project was established in this area.

Project 650: Assistance to a furniture manufacturer in Milledgeville, Georgia (Growth Center)

Nature of Problem: This furniture manufacturer requested assistance in locating a source of supply for packaging material and in the development of new production techniques and equipment design.

Work Performed: A potential supplier of the packaging material needed has been identified and referred to this company. A preliminary design for an automated piece of equipment has also been developed and sent to this company for their use in solving the equipment problem.

Results: The project is continuing.

Ongoing Projects

There is now the one new project under way in this area.

Discontinued Projects

None.
General

The Slash Pine Area Economic Development District consists of eight counties, of which four are eligible Redevelopment Area counties: Atkinson, Clinch, Pierce, and Brantley. The Growth Center is Waycross (Ware County).

New Projects

During the quarter four new projects were established in this area.

Project 643: Assistance to a sign manufacturing company in Waycross, Georgia (Growth Center)

Nature of Problem: At the request of the Slash Pine Area Planning and Development Commission, this company was visited by an IDD staff member to discuss the company's history and present condition. During this visit, assistance was requested in preparing a loan application for a plant expansion and additional production equipment.

Work Performed: Assistance is being rendered in assembling information on the machinery required for the expansion and the cost of such machinery and the cost of required modifications to the plant building. Assistance is also being rendered in documenting the future sales potential through a survey of the company's customers.

Results: The project is continuing.

Project 651: Assistance to an individual in Waycross, Georgia (Growth Center)

Nature of Problem: An individual requested IDD assistance in performing a market investigation to determine the feasibility of establishing a cold storage or bulk storage warehouse facility in Waycross, Georgia.

Work Performed: Preliminary information and data have been collected for a market study on the market for a cold storage facility in Ware County, Georgia. This information is being analyzed and assembled into a report which will be supplied to the individual who requested assistance.

Results: The project is continuing.

Project 656: Assistance to a janitorial service company in Coffee County

Nature of Problem: This firm is investigating the feasibility of producing a line of private brand cleaning products and requested IDD assistance in developing a marketing strategy and packaging design for a test market program.
Work Performed: On IDD's recommendation, this firm has requested a written release from the chemical company allowing it to enter the retail market with the formulations being supplied to them for the janitorial service operation. Assistance is also being rendered in determining production procedures, locating sources of supply and general management assistance. Work has begun on designing labels for the products and in securing samples of bottles from suppliers. A shipment of bottles has been ordered for the market testing of the products which is being made in order to determine the acceptability of the line to housewives.

Results: The project is continuing.

Project 663: Assistance to a garment manufacturer in Bacon County

Nature of Problem: This firm is experiencing a very high labor turnover rate and requested assistance in recruiting and maintaining a stable work force.

Work Performed: In a phone contact with the management of this firm, it was determined that an 87% turnover in the work force was experienced during the past six months. An appointment has been arranged for a visit to this plant for the purpose of surveying and evaluating the current situation prior to formulating recommendations on how to overcome the problem.

Results: The project is continuing.

Ongoing Projects

There are now the four new projects above under way in this area.

Discontinued Projects

During the quarter two projects were discontinued.

Project 560: Assistance to a fiber glass company in Bacon County

Nature of Problem: A group of individuals is establishing a company to manufacture fiber glass bath enclosures and has requested IDD assistance.

Work Performed: IDD is assisting with determining capital requirements, selection of equipment, and the development of a plant layout, and with a market evaluation. A visit was arranged to a plant in Metter, Georgia, which produces a similar product, for the purpose of observing the production process and reviewing the equipment used in the production of fiber glass products. A market survey has been prepared and presented to the company for evaluation. Based upon this report the principals have decided that their initial production estimates had been overly optimistic. They were assisted with a reevaluation of the proposed venture based on a reduced production estimate. An investigation was made of the feasibility of producing fiber glass septic tanks. Construction has been completed on a manufacturing facility for the production of bathroom fixtures. Efforts to recruit a plant manager have been successful and production has started. The firm which originally contracted to supply the molds failed to deliver and production was delayed while molds were
being secured from another firm. Quality control checks by an IDD staff member were made on a representative sample of the first production unit. Assistance was also given in improving materials handling procedures in order to increase operating efficiency.

Results: This plant is now in full production and no additional assistance is needed. The project is closed.

Project 638: Assistance to a food processing company in Coffee County

Nature of Problem: The president of this firm requested IDD assistance in analyzing the company's personnel procedures and policies in order to reduce the high turnover being experienced in its work force.

Work Performed: A meeting with the management of this firm revealed that since 1967 the work force has grown from 424 employees to the current level of nearly 1,000 employees. In analyzing the problem, it was discovered that the primary cause of the work force turnover was the explosive growth and expansion of the company. During the visit to the plant, many recommendations and suggestions were made to management and they expressed the intention of implementing these suggestions immediately. A written report detailing the suggestions has been prepared and forwarded to the company management.

Results: In recent contacts with this company, officials indicated that good progress is being made in resolving problems in personnel policies and procedures. No further assistance is needed, so this project is closed.
General

The Southwest Georgia Economic Development District consists of 13 counties, of which five are eligible Redevelopment Area counties: Baker, Calhoun, Grady, Miller, and Mitchell. The Growth Centers are Albany (Dougherty County) and Bainbridge (Decatur County).

New Projects

During the quarter three new projects were established in this area.

Project 649: Assistance to an individual in Albany, Georgia (Growth Center)

Nature of Problem: An individual requested IDD assistance in establishing a manufacturing facility for the manufacture of motorcycle trailers.

Work Performed: Based on this individual's preliminary trailer design, assistance is being rendered in finding suppliers of the component parts. A list of potential suppliers has been compiled and supplied to this individual. Information is also being collected on the safety requirements which must be met by a motorcycle trailer.

Results: The project is continuing.

Project 661: Assistance to a new venture in fiberglass boat manufacturing in Calhoun County

Nature of Problem: An individual interested in establishing a manufacturing facility to produce fiberglass boats requested IDD assistance in establishing such an operation.

Work Performed: Assistance is being given in collecting technical information regarding fiberglass fabrication and in making financial projections on the financing needs of this new venture. Technical information collected by IDD has been forwarded to the principals of this new venture for their use in planning the new facility.

Results: The project is continuing.

Project 664: Assistance to a mobile home manufacturer in Mitchell County

Nature of Problem: This firm is currently producing 20 mobile homes per week and has requested IDD assistance with planning an expansion of the plant to enable it to achieve a 40 unit per week production rate.

Work Performed: A meeting has been held with the plant manager and the plant engineering staff to review their plans and to determine the problems to be overcome in the planned expansion. The information needed to begin work on a plant layout for the expanded plant is being collected by company management and will be forwarded to IDD. The major problem to overcome in planning this expansion is the limited space available at the present plant site.
Ongoing Projects

There are now four projects under way in this area. In addition to the three new projects above, there is:

Project 639: Assistance to a new cotton gin venture in Lee County

Nature of Problem: The principals of the new venture requested IDD assistance in their efforts to buy and modernize a cotton gin in Smithville, Georgia.

Work Performed: As a result of several meetings with the principals to review their plans, the IDD staff has recommended that they seek an SBA 502 loan. The necessary information for their loan application is being collected and assistance in the preparation of this loan application will be provided as soon as the necessary information is collected.

Results: The project is continuing.

Discontinued Projects

During the quarter one project was discontinued in this area.

Project 619: Assistance to an individual in Lee County

Nature of Problem: An individual interested in establishing a pecan shelling plant in Lee County requested information on financing such a venture through SBA.

Work Performed: Background information required for the preparation of an SBA loan application was collected. A consulting firm in Marietta, Georgia, which had been assisting this new venture was contacted in order to secure its cooperation. Plans and specifications for the building, machinery, and equipment were developed in anticipation of successfully securing SBA financing for this venture. The Leesburg Development Corporation was contacted by Company officials and agreed to cooperate in requesting an SBA community development loan for the purpose of building a facility to house this company's operation. It is anticipated that initial employment will be 100 people with a total project cost of approximately $500,000.

Results: This individual has decided to delay this new venture for approximately one year; therefore, no further assistance is needed at this time.
MIDDLE FLINT ECONOMIC DEVELOPMENT DISTRICT

General

The Middle Flint Economic Development District consists of eight counties, of which three are eligible Redevelopment Area counties: Webster, Schley, and Marion. The Growth Center is Americus (Sumter County).

New Projects

During the quarter, two new projects were established in this area.

Project 653: Assistance to an individual in Macon County

Nature of Problem: An individual who owns a large acreage of pecan orchards requested IDD assistance in planning, designing, and financing a pecan shelling operation for his own as well as for other growers in the area.

Work Performed: Information needed to evaluate the technical and economic factors in this new venture is being collected. A machinery list for the proposed plant has been drawn up and price quotes are being solicited from equipment suppliers. Information on the market for shelled pecans and data on the availability of raw pecans for shelling in the area are being collected.

Results: The project is continuing.

Project 662: Assistance to a new venture to establish a grain storage facility in Sumter County

Nature of Problem: The representative of a group of investors interested in establishing a storage and processing facility for wheat, corn and soybeans requested IDD assistance in evaluating the feasibility of such a venture.

Work Performed: A visit has been made to the proposed site for the facility (160 acres with rail siding) in order to discuss the strong and weak points of the site with the investors. Contacts are being made with the Agribusiness Council of the Georgia Department of Agriculture, the University of Georgia Agricultural Marketing Service and the U. S. Department of Agriculture Crop Reporting Service in order to secure information on the need for the planned facility in the area being considered.

Results: The project is continuing.

Ongoing Projects

There are now four projects under way in this area. In addition to the two new projects above, there are:

Project 614: Assistance to a utility building manufacturer in Taylor County

Nature of Problem: This firm has been in business only a short time and is presently operating in a 7,000 square foot leased facility. The sales have grown to
the point that the company must now lease a larger building in order for production to meet the sales level. Assistance has been requested in making an application to SBA for a loan to finance this move.

**Work Performed:** Information, which included general information, cash flow, and pro forma financial statements, was collected for the loan application. The SBA loan application was completed and submitted for approval. We have recently been informed by the SBA representative that the loan was approved in the amount of $50,000. There has been a temporary delay in disbursement of the funds under the approved SBA loan due to technicalities. The principals have been assured that there is no problem with the loan and they have proceeded with the move to a larger facility. IDD has developed a suggested cost accounting system for this company. This system has been discussed and explained to the bookkeeper and has been implemented. As a result of the successful implementation of the cost control system, other simple management tools (e.g., breakeven point analysis, cash budgeting, sales forecasting, production forecasting) have been explained and discussed with company officials and implementation of these tools is being undertaken. The principals have recently informed IDD that arrangements have been completed for meeting their financing needs without SBA participation. Assistance has been requested in this company's efforts to secure certification of their units from the State of Georgia Fire Marshall. Detailed information on the requirements which must be met for such certification has been provided to the company.

**Results:** The project is continuing.

**Project 635: Assistance to a furniture manufacturing company in Schley County**

**Nature of Problem:** The president of this venture requested IDD assistance in developing plant layout plans for a new 25,000 sq. ft. manufacturing plant in Ellaville, Georgia. This new plant is being constructed due to the damage to their existing plant building by an extremely heavy snow fall.

**Work Performed:** Preliminary discussions have been held on the production requirements for the new facility. IDD staff has requested that the company collect and provide additional information prior to undertaking the plant layout design. Information has been provided on OSHA plant safety requirements which must be met by this plant in its new facility.

**Results:** The project is continuing.

**Discontinued Projects**

None.
General

The Chattahoochee-Flint Economic Development District consists of nine counties, of which two are eligible Redevelopment Area counties: Pike and Meriwether. The Growth Centers are Carrollton (Carroll County) and La Grange (Troup County).

New Projects

During the quarter two new projects were established in this area.

Project 641: Assistance to an industrial development group in Pike County

Nature of Problem: A group of community leaders in Pike County requested IDD assistance in forming an economic and industrial development group.

Work Performed: Information regarding the organizations and working structures used by Chambers of Commerce and Development Authorities in Georgia has been compiled and supplied to representatives of this community group for use in their planning. IDD representatives have met with interested business and civic leaders to discuss the need, purpose and operation of a local development authority.

Results: The project is continuing.

Project 648: Assistance to an individual in La Grange, Georgia (Growth Center)

Nature of Problem: This individual has requested IDD assistance in evaluating the feasibility of developing a marina on a site to be leased from the U. S. Corps of Engineers at the new West Point reservoir.

Work Performed: Information has been collected and provided to this individual on marina operations and hotel-motel operations. Several visits have been arranged with the operators of existing marinas in order to discuss various aspects of this type of business.

Results: The project is continuing.

Ongoing Projects

There are now the two new projects above under way in this area.

Discontinued Projects

None.
The Coastal Area Economic Development District consists of six counties, of which four are eligible Redevelopment Area counties: Camden, Long, McIntosh, and Bryan. The Growth Centers are Brunswick (Glynn County) and Hinesville (Liberty County).

New Projects
During the quarter no new projects were established in this area.

Ongoing Projects
There are now no projects under way in this area.

Discontinued Projects
None.
LOWER CHATTAHOOCHEE ECONOMIC DEVELOPMENT DISTRICT

General

The Lower Chattahoochee Economic Development District consists of seven counties, of which three are eligible Redevelopment Area counties: Clay, Quitman, and Randolph. The Growth Center is Columbus (Muscogee County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

None.
QUARTERLY REPORTS:

JUNE - NOVEMBER 1972 (INCLUSIVE)
DECEMBER 1972 - FEBRUARY 1973 (INCLUSIVE)

BOUND IN PART III.
Project 654: Assistance to a garment manufacturer in Paulding County

Nature of Problem: This firm is currently operating under extremely crowded conditions in the current production space of 8,000 sq. ft. IDD assistance has been requested in planning an expansion of this plant in order to overcome the crowded working conditions.

Work Performed: An IDD staff member has met with the plant manager to review the requirements to be met by the plant expansion and to collect other information needed to prepare a proposed new layout. A plant layout of the proposed expansion has been prepared and reviewed with the plant manager. Information is being collected on electrical loads and lighting requirements for this expansion.

Results: The project is continuing.

Project 658: Assistance to an inventor in Cobb County

Nature of Problem: The inventor of a patented carpet manufacturing process requested IDD assistance in preparing a business plan for a new venture in carpet manufacturing which would use equipment based on his patent.

Work Performed: Several meetings have been held with this inventor to determine the best approach to use in the business plan in order to protect his patent rights and at the same time to make the plan attractive to investors. A draft of the business plan has been prepared, including preliminary cash flow projections. This draft is now being reviewed by the inventor and his financial advisors and will be revised as needed prior to presenting it to potential investors.

Results: The project is continuing.

Ongoing Projects

There are now seven projects under way in this area. In addition to the five new projects above, there are:

Project 630: Assistance to an individual in Cherokee County

Nature of Problem: An individual holding a patent on an automatic welding hood with automatically positioned eye shield requested IDD assistance in determining the best method of exploiting his patent.

Work Performed: Assistance is being rendered in determining the best method for marketing a product based upon this individual's patent. Information is being collected pertinent to the advantages of establishing a plant to manufacture the product versus subcontracting the manufacture of the product and marketing under a private brand.

Results: The project is continuing.
Project 637: Assistance to an industrial development group in Cherokee County

Nature of Problem: The Chairman of this industrial development group has requested IDD assistance in developing plans for a 100 acre industrial park adjacent to the Canton airport.

Work Performed: IDD staff members have visited the proposed site for the industrial park and have discussed with representatives of the development group the information needed to develop a park layout and site brochures. Efforts are under way to secure assistance from the USDA soil conservation office, railroad companies, water departments, and chambers of commerce. The Federal Aviation Agency is also being contacted to determine the restrictions, if any, on the development of the proposed site since it is located adjacent to an airport. The site brochure for this new industrial park has been completed and delivered to the development group.

Results: The project is continuing.

Discontinued Projects

None.
In drawing conclusions about the program, it would not be difficult to overstate the impact of the work performed by IDD staff personnel on the individual projects; however, available information indicates some noteworthy results in the area of employment and jobs affected. A total of approximately 835 identifiable jobs have been created or saved in firms assisted by IDD. Another 110 identifiable jobs have been created in expanding companies which were assisted. In the new ventures which were aided by IDD 63 new jobs either are being created or show definite promise of early establishment.

Conclusions regarding the overall impact of this program must be based upon a collective evaluation of the individual projects and their respective results. This evaluation should include not only a recognition of the fact that a deliberate attempt has been made to state the significance of IDD efforts in realistic terms, but also a consideration of the following special points concerning the results reported:

1. In many cases, the contributions of IDD staff personnel were major factors in management decisions to act or not to act on a specific plan of development. This was particularly true in those cases involving the development of new ventures.
2. In some situations, the end result would have been the same regardless of IDD participation. In such cases, IDD staff personnel helped to facilitate the achievement of an already determined goal.
3. In certain projects, IDD staff personnel filled a negative role by determining that a proposed course of action was not economically sound. The project staff felt that such actions, where they were taken, were in the best interests of all parties in the project. It is not enough to provide support for sound proposals; the unsound ones also must be identified.

Because of the preceding considerations, it is not practical to attempt to quantify results of this type program solely in terms of jobs created. Further, since it was the first program of its kind in a state-supported university, it is impossible to judge its merit on a comparative basis. It is necessary, therefore, to evaluate the program by empirical means. Several observations indicate that the management and technical assistance program to business and industry in Georgia has been beneficial:

1. After a modest start, the program has grown both in quantity of projects and in the comprehensiveness of the assistance offered. The program has been well received throughout Georgia and is being supported by the firms that have been assisted.
2. Consultants of all types have been kept apprised of Georgia Tech's management and technical assistance efforts and have worked in conjunction with IDD to further the program. All parties concerned seem to feel that the program is mutually beneficial.
3. Success of the original program has led to expansion of the project by the U. S. Department of Commerce's Economic Development Administration in Georgia and initiation of comparable programs by agencies in other states.

4. As a result of previous MATA experience, IDD personnel provided counsel to the federal government in an effort to bridge the gap between the accumulated findings of governmental, education, and private research and the information needs of business and industry. This counsel eventually resulted in the passing of the State Technical Services Act of 1965.
WARD, WILLIAM C., JR.--Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1940
Command and General Staff College, Fort Leavenworth 1953
Senior Course, Marine Corps Schools 1956
Management School, Fort Belvoir 1961

Employment History

Southern Mercerizing Company, Supervisor 1932-1939
China Grove Cotton Mills, Foreman 1940
U.S. Marine Corps, Colonel 1940-1964
Dean Foods Company, General Manager 1964-1966
Georgia Institute of Technology
Research Scientist 1966-1971
Senior Research Scientist 1971-Present
Head, EDA Services Section, IDD, EES 1967-1970
Head, Applied Technology Group, IDD, EES 1970-1971
Head, Special Projects Branch, IDD, EES 1971-1972
Head, Industrial Services Branch, IDD, EES 1972-Present

Experience Summary: At Southern Mercerizing Company, performed at the supervisory level in mercerizing, skeining, coining, quilling, and shipping departments. Night superintendent of entire plant for one summer. At China Grove Cotton Mills, performed as foreman of carding department. In U.S. Marine Corps performed in various command and staff positions including: Chief of Staff, Third Marine Division -- supervised and coordinated entire general and special staff. Comptroller, Marine Corps Base -- staff responsibility for financial management, including accounting, budgeting, disbursing, data processing and financial administrative organization. Chief, Atomic Biological, and Chemical Section, Educational Center, Marine Corps Schools -- responsible for supervising and participating in instruction in Marine Corps Schools, Basic, Junior and Senior Courses. Industrial Relations Officer -- responsible for civilian personnel program including employment, employee relations, training, safety, payroll, and wage and classification divisions. As general manager of Dean Foods Company, managed and supervised management controls, purchasing, traffic, production and quality controls, personnel and all administrative functions. At Georgia Tech, directed IDD's overall operations in EDA matters; provided management and technical assistance to industry as required. Directed IDD's overall operations in Housing Resources matters and overall activities of Special Projects Branch. Presently directs the activities of Industrial Services Branch.

Current Fields of Interest

All aspects of management and technical assistance to industry.

Major Reports and Publications

BIОGRAPHICAL SKETCHES

EXHIBIT 3
Major Reports and Publications (continued)

9. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, March 1968, coauthor
11. "Economic Impact of Proposed Water and Sewerage System Improvements on Roberta, Georgia," EDA Special Report, April 1968, coauthor
12. "Impact of Proposed Sewer Improvements on the City of Waycross and Ware County," EDA Special Report, April 1968, coauthor
TAYLOR, HARDY S.--Assistant Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

University of Alabama, B.S. Business Administration and Pre-Law 1943
Harvard Graduate School of Business Administration 1944
University of Nebraska, Graduate School of Business Organization 1951
Defense Department Comptrollership School, Washington, D. C. 1955

Employment History

National Southern Products, Inc., Tuscaloosa, Alabama, Research Assistant 1943
Turco Products, Inc., Atlanta, Georgia, Representative and Field Engineer 1943-1964
U.S. Navy, Supply and Fiscal Officer/Comptroller 1943-1964
Gladwin Industries, Inc., Atlanta, Georgia, Treasurer (Controller) 1964-1966
Georgia Institute of Technology Research Scientist 1966-1972
Senior Research Scientist 1972-Present
Head, Management and Technical Assistance Section 1968-Present
Head, EDA Services Section 1970-Present
Assistant Head, Industrial Services Branch, IDD, EES 1970-Present

Experience Summary: As the Assistant Head of the Industrial Services Branch, is responsible for directing the overall IDD program of management and technical assistance and EDA services to Georgia industry. Served as treasurer of a locally-based national corporation, primarily a manufacturer for the telephone industry, and was responsible for accounting and financial management, office administration and sales maintenance services, purchasing, customer relations and local sales, personnel administration, print shop operations and sales catalog maintenance. Served as a member of the board of directors of several corporations with national and international sales distribution. In 1964 completed twenty years in U.S. Navy as top departmental executive with experience in all phases of business and financial management with special emphasis on Controllership, which consisted of budgeting and internal auditing; and Supply and Fiscal operations consisting of: accounting and payroll, office administration and personnel management and training, procurement and contract negotiation and administration, inventory management, warehousing, traffic operations, quality control, industrial safety, and property disposal. Assisted in the development of, and in charge of implementation of, a new Inventory Management concept at the Naval Aviation Supply Office, which is the world wide inventory control point for all Naval Aviation spare parts and material. This concept was based on the maximum utilization of the latest Electronic Data Processing equipment and it resulted in the greatest advancement in the management of aviation material during the past several years. Served as Supply and Fiscal Office/Comptroller at several Naval Air Stations and directed a working staff of 75 to 300 civilian personnel. As the first U.S. Naval representative in Sicily, negotiated at the highest governmental levels in Sicily and in Rome in arriving
at agreements and procedural methods for operation of a U.S. Naval Air Station. Additionally, recruited, interviewed, selected and hired the initial group of 100 civilian personnel. Also negotiated and approved contracts for procurement of equipment, supplies and services from European sources to provide complete support for a station population of 1,800 people. Developed the idea and published a catalog in connection with a Simplified Issue Procedure for General Stores Material. This idea has been further developed and is widely used throughout the Naval Supply System.

**Current Fields of Interest**

All phases of area development activity, including industrial and community development, financial and inventory management, and management development.

**Major Reports and Publications**

1. Published a catalog in connection with a Simplified Issue Procedure for General Stores Material
2. Author of numerous published company studies; procedural systems manuals; and operational plans
7. "Economic Impact of Proposed Water and Sewerage System Improvements on Warrenton, Georgia," EDA Special Report, September or December 1967
12. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, February 1968
16. "Economic Impact of a Proposed Industrial District to be Located in Richmond County, Georgia," EDA Special Report, May 1968 (coauthor)
Major Reports and Publications (continued)


BIographiesketch

BETHEA, EDWIN A. -- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S., Knoxville College 1953
M.S.W., Howard University 1962
Certificate of Completion, Howard University's Small Business Guidance Center 1969

Employment History

District of Columbia, Department of Public Welfare, Caseworker, Child Welfare Division 1962-1965
Far East Community Services, Inc., Community Organizer-Youth Community Organizer 1965-1966
United Planning Organization, Community Organization Specialist (training officer), Economic Development Specialist 1966-1968
Youth Enterprises, Inc., Executive Director, Washington, D.C.; Director-East Central Regional Office 1968-1970
Consultant Employers Office of Economic Opportunity; Manpower Assistance Project 1970-1972
Inc.; University Research Corp.; Xerox Corporation; Commerce Department, Economic Development Administration.

Georgia Institute of Technology, Research Scientist 1972-Present

Experience Summary: Directed a regional office for technical assistance that provided services to minority and economically disadvantaged groups in mid Atlantic region; this entailed establishing, structuring, and supervising new program offices in several states within the region. Program developer for minority economic ventures and community development project; the responsibilities included establishing a working relationship with community groups, federal, state and local government agencies and/or private agencies whose interests were similar. Organized and managed a minority firm for the purpose of establishing "spin-off" business ventures and the training of minority entrepreneurs. Managed and developed programs aimed toward helping groups initiate and implement economic and social changes in their community such as employment practices, bureaucratic procedures, etc. Assisted quasi government and government department directors in community planning. Developed and directed programs relating to youth activities in the areas of training, proposal development, community improvement and change and economic developments.

Current Fields of Interest

Minority business development, industrial and community development, manpower management and motivation, transportation and new economic systems.

December 1972
CHIANG, TZE I.--Senior Research Economist, Industrial Development Division, Engineering Experiment Station

Education

B.A. in Agricultural Economics, Fukien Christian University 1946
M.S. in Agricultural Economics, Oklahoma State University 1955
Cornell University 1957 (Summer)
Ph.D. in Agricultural Economics, University of Florida 1958

Employment History

Junior high school teacher, Foochow, China 1946-1947
China Textile Industries, Inc. 1947-1953
Oklahoma State University, Graduate Assistant 1954-1955
University of Florida, Research Assistant 1955-1958
Georgia Institute of Technology
Assistant Research Economist 1958-1962
Research Economist 1963-1964
Senior Research Scientist 1965-Present

Experience Summary: Began as a teacher in a junior high school in 1946. Joined the China Textile Industries, Inc., in 1947, and rose gradually to the position of Assistant to the General Manager in 1953. At Oklahoma State University, accepted a graduate assistantship in collecting and analyzing data related to land value and the cattle business. Enrolled in the University of Florida in 1955 and was appointed Research Assistant, working on own dissertation in regard to a marketing study of Florida ferns. At Georgia Tech, has dealt mainly with feasibility studies on various industries which show potential as manufacturing opportunities in Georgia.

Current Fields of Interest

Manufacturing feasibility studies.

Major Reports and Publications

7. "Lumber and Wood Products, Furniture and Fixtures" (Studies of Selected Industries in the Southeast River Basins, Section 4), Georgia Tech Report, March 1961
Major Reports and Publications (continued)

11. "Evaluation of Agriculturally Oriented and Wood-Based Manufacturing Opportunities in Carroll County, Georgia," Georgia Tech Report, February 1964, coauthor
BIOGRAPHICAL SKETCH

DIAMOND, HARVEY--Senior Research Engineer, Industrial Development Division, Engineering Experiment Station

Education

St. Johns University 1941-1942
B.S. in Textile Engineering, North Carolina State College 1942-1946

Employment History

Cohn-Hall-Marx, Converter and Assistant Designer 1946-1947
American Woolen Company, Designer and Assistant Buyer 1947-1950
Dux Mixture Hardware Company, Partner 1950-1960
Georgia Institute of Technology 1960-1965
Assistant Research Engineer 1965-1967
Research Engineer 1965-1967
Senior Research Engineer 1967-Present

Experience Summary: Economic feasibility studies; plant location analyses; market research to identify manufacturing and nonmanufacturing business opportunities; raw materials and intermediate products availability studies; liaison with prospects on industrial location possibilities; evaluation and development of area resources; transportation studies; management and technical assistance to prospective and established business; product diversification studies; manpower resources; industrial economic analyses; purchasing and marketing of hardware, wholesale and retail; textile designing; textile converting. Coeditor of monthly metalworking bulletin.

Current Fields of Interest

Market analyses; plant location criteria; economic feasibility analyses.

Major Reports and Publications

PARETS, GASTON A.—Head, International Operations Section, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Engineering, with emphasis in Industrial Processes and Operations, and Computer Sciences. Minor in Mathematics, University of Miami 1966

Master of Business Administration with a major in International Business. Emphasis in International Economics, Finance and Trade, Georgia State University 1968


Employment History

Johnston Automatic Controls, Coral Gables, Florida 1964-1966

Assistant Engineer and Technical Draftsman

Ford Motor Company, Automotive Assembly Division, Hapeville, Georgia

Process Engineer 1966-1967

Manufacturing Engineer "A" 1968-1969

Georgia Institute of Technology, Industrial Development Division, Engineering Experiment Station

Research Engineer 1970-Present

Head, International Operations Section 1971-Present

Experience Summary: While associated with Johnston Controls, worked as a technical draftsman and assisted project engineers in projects related with the design and installation of refrigeration and heating automatic control systems. During employment with Ford, responsibilities were wide ranged, including quality control, tool design, cost reduction, and the solution of problems, both of human and technical nature. At Georgia Tech, the activities consist in the preparation, execution and follow-up of industrial development projects in Latin America, with heavy administrative work as head of one of the Division's Sections. This assignment involves heavy traveling throughout South America. During the last year, activities included three months of technical assistance to the Industrial Development Office of the University of Carabobo in Venezuela and direct involvement in the Industrial Development Program of the government of Paraguay and technical assistance to the Development and Productivity Center, also in Paraguay.

Major Reports and Publications

1. "Footwear Manufacturing Advantages of a Georgia location," Georgia Institute of Technology, 1970


3. "Industrial Profile of the City of San Felipe, Venezuela," 1971

4. "Feasibility Studies in Industries such as Alcohol, Marble Mining and Processing, Lumber, Meat Freezer, and Slaughterhouse, as well as other Minor Industries," 1971

Current Fields of Interest

International economic development, social, economic and other specialized studies as they relate to economic development.
POTTS, PHILLIP W.--Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1962
M.B.A. in Marketing, Georgia State University 1968

Employment History

U. S. Army 1955-1958
Georgia Institute of Technology, Student 1958-1962
General Motors, Accountant 1962-1964
St. Regis Paper Company, Production Department Head, Sales Coordinator, Production Coordinator 1964-1972
Georgia Institute of Technology Research Scientist 1972-Present

Experience Summary: Served three years in U. S. Army Intelligence, traveling extensively throughout Europe. Employed by General Motors in accounting functions of payrolls, accounts payables, accounts receivables, and standard costing. Held various positions with St. Regis Paper Company from production department head to sales coordinator and production coordinator, being responsible for supervision of several hundred production personnel, quality control, production scheduling, inventory control, shipping and receiving efficiency, purchasing, customer service, and implementation of systems for changing production and financial records from manual calculation to EDP.

Current Fields of Interest

All aspects of industrial management.
Biographical Sketch

Womack, Charles C.--Assistant Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S.I.M., Georgia Institute of Technology 1963

Employment History

<table>
<thead>
<tr>
<th>Employment</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. O. White, Jr., Engineer, Draftsman</td>
<td>1960 (summer)</td>
</tr>
<tr>
<td>Daniel, Manning, Johnson and Mendenhall, Land Surveying</td>
<td>1961 (summer)</td>
</tr>
<tr>
<td>Great Books Inc., Salesman</td>
<td>1962 (summer)</td>
</tr>
<tr>
<td>Georgia Power Company, Merchandise Sales Representative</td>
<td>1963-1964</td>
</tr>
<tr>
<td>U. S. Army, Battalion Supply Officer (S-4)</td>
<td>1964-1966</td>
</tr>
<tr>
<td>Atlantic Company, Branch Manager (ice)</td>
<td>1966-1967</td>
</tr>
<tr>
<td>Georgia Institute of Technology</td>
<td>1967-Present</td>
</tr>
</tbody>
</table>

Experience Summary: Duties as a battalion supply officer included administering and supervising the unit motor pool and requisitioning all types of supplies for the support of the unit mission. Duties as Branch Manager with Atlantic Company included the day-to-day operation of an ice manufacturing plant, recruiting and training personnel, supervision of equipment and vehicle maintenance, sales promotion, customer relations, budgeting and cost control. Initial work at Georgia Tech was in connection with an economic development project in the Atlanta Model Neighborhood area which had as its objectives the identification of economic development potentials in the area, the identification of ways to exploit these development potentials, and the reporting of the results of research findings to the City of Atlanta. Recent work has included participation in an economic development program in Valencia, Venezuela, which included identification and evaluation of new manufacturing opportunities and the establishment of a program of management and technical assistance to small and medium-size businesses in Venezuela.

Current Fields of Interest

All areas of economic development, especially those dealing with the economic problems connected with urban and rural poverty; upgrading productivity and Latin American economic development.

Major Reports and Publications

4. "Economic Impact of the Proposed Vocationa-Industrial Training Center to be Located in Monroe, Walton County, Georgia," Special EDA Report, March 1969, coauthor
Major Reports and Publications (continued)

10. "La Fabricacion de Aisladores de Porcelana en Venezuela," Report of the University of Carabobo (in Spanish), 1971, coauthor
This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 26th day of June 1972.
### CHART 3
REGIONAL ECONOMIC DEVELOPMENT CENTER ACTIVITY REPORT
June 1, 1973 to August 31, 1973

<table>
<thead>
<tr>
<th></th>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Venture</th>
<th>Community Development</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
</tr>
<tr>
<td>ONGOING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(BEGINNING)</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>NEW</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>DISCONTINUED</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>ONGOING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ENDING)</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL ACTIVE</td>
<td>4</td>
<td>9</td>
<td>10</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>DURING QUARTER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Percentage of Effort as measured by Cost***

<table>
<thead>
<tr>
<th></th>
<th>This Period</th>
<th>Previous Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Stabilization</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>Business Expansion</td>
<td>33</td>
<td>13</td>
</tr>
<tr>
<td>New Venture</td>
<td>38</td>
<td>49</td>
</tr>
<tr>
<td>Community Development</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

* Cost is interpreted to mean Budget Cost for Period of Reporting.
### Summary of Project Activity by Type and Subregion

<table>
<thead>
<tr>
<th>Subregion</th>
<th>New Venture</th>
<th>Business Expansion</th>
<th>Business Stabilization</th>
<th>Community Development</th>
<th>Current Costs % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTRAL SAVANNAH RIVER EDD</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>COASTAL PLAIN EDD</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>GEORGIA MOUNTAINS EDD</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>HEART OF GEORGIA EDD</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>NORTHEAST GEORGIA EDD</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>OCONEE AREA EDD</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SLASH PINE EDD</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>SOUTHWEST GEORGIA EDD</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>MIDDLE FLINT EDD</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CHATTahoochee-FLINT EDD</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>COASTAL AREA EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LOWER CHATTahoochee EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PROJECTS OUTSIDE EDD'S</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16</strong></td>
<td><strong>14</strong></td>
<td><strong>9</strong></td>
<td><strong>3</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Area</td>
<td>Business Stabilization</td>
<td>Business Expansion</td>
<td>New Venture</td>
<td>Community Econ. Develop.</td>
<td>Other</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>--------------------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
</tr>
<tr>
<td>CENTRAL SAVANNAH RIVER EDD</td>
<td>Not Estb. 412</td>
<td></td>
<td>Not Estb. 8</td>
<td></td>
<td>Not Estb. 0</td>
</tr>
<tr>
<td>COASTAL PLAIN EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 5</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>GEORGIA MOUNTAINS EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>HEART OF GEORGIA EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>NORTHEAST GEORGIA EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>OCONEE AREA EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>SLASH PINE EDD</td>
<td>&quot; 220</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>SOUTHWEST GEORGIA EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 40</td>
<td></td>
<td>&quot; 25</td>
</tr>
<tr>
<td>MIDDLE FLINT EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>CHATAHOOCHIE-FLINT EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>COASTAL AREA EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>LOWER CHATAHOOCHIE EDD</td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
<td></td>
<td>&quot; 0</td>
</tr>
<tr>
<td>PROJECTS OUTSIDE EDD’S</td>
<td>&quot; 30</td>
<td></td>
<td>&quot; 57</td>
<td></td>
<td>&quot; 38</td>
</tr>
<tr>
<td>TOTAL</td>
<td>662</td>
<td></td>
<td>110</td>
<td></td>
<td>63</td>
</tr>
</tbody>
</table>

-36-
AREA PLANNING AND DEVELOPMENT COMMISSION BOUNDARIES AND BRANCH OFFICES

OF GEORGIA TECH'S INDUSTRIAL DEVELOPMENT DIVISION

1. ALTAMAHA – GEORGIA SOUTHERN
2. ATLANTA METROPOLITAN
3. CENTRAL SAVANNAH RIVER
4. CHATTahoochee–FLINT
5. COASTAL
6. COASTAL PLAIN
7. COOSA VALLEY
8. GEORGIA MOUNTAINS
9. HEART OF GEORGIA
10. LOWER CHATTahoochee
11. MCINTOSH TRAIL
12. MIDDLE FLINT
13. MIDDLE GEORGIA
14. NORTH GEORGIA
15. NORTHEAST GEORGIA
16. OCONEE
17. SLASH PINE
18. SOUTHWEST GEORGIA

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology

DIVISIONAL OFFICE
BRANCH OFFICES
AREA PLANNING' AND DEVELOPMENT COMMISSIONS
BRANCH OFFICE AREAS

-37-
1. Georgia Mountains EDD
2. Northeast Georgia EDD
3. Central Savannah River EDD
4. Oconee EDD
5. Heart of Georgia EDD
6. Coastal Plain EDD
7. Slash Pine EDD
8. Coastal EDD
9. Southwest Georgia EDD
10. Middle Flint EDD
11. Chattahoochee-Flint EDD
12. Lower Chattahoochee EDD
Map 3

EDA Counties and EDD's as of 1 July 1973

-39-
This study was accomplished by professional consultants under contract with the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the contractor and do not necessarily reflect the view of the Economic Development Administration.

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology
November 1973
Table of Contents

Preface i
Summary iii
INTRODUCTION 1
RELATIVE PROGRESS IN THE SOUTHEASTERN REGION 3
   Population 3
   Employment 3
   Economic Activity 6
REGIONAL INCOME GAP 9
AGRICULTURE 17
FORESTRY 27
HOUSING 31
HUMAN RESOURCES 39
INDUSTRIAL DEVELOPMENT 51
MARINE RESOURCES 61
TOURISM 67
TRANSPORTATION 75
INTERNATIONAL TRADE AND INVESTMENT 81
APPENDIX 93
   Appendix A. Employment by Sector for the States, Southeastern Region, and United States, 1960 and 1970 95
BIBLIOGRAPHY 97

* * * *

Tables
3. Selected Comparison Indicators, United States and Southeastern Region 7
Tables (continued)

6. Per Capita Income of the Eight-State Region and the U. S. for Selected Years, 1929-1990 14
7. Number of Farms in the United States, the Eight States, and the United States Minus the Eight States, 1959, 1964, and 1969 18
12. Realized Gross Income per Farm in the United States, the Eight States and the United States Minus the Eight States, 1959, 1964, and 1969 21
15. Commercial Vegetables: Acreage of Principal Crops by Region and the United States, 1971 26
17. Population and Total Males, 16 Years Old and Older, in the Labor Force in the Eight Southeastern States 41
18. Population and Total Females, 16 Years Old and Older, in the Labor Force in the Eight Southeastern States 41
19. Number and Percent of Civilian Labor Force Unemployed, by Male and Female, in the Eight Southeastern States and the U. S. 42
21. Education of Persons 25 Years Old and Older in the Southeastern Region 45
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.</td>
<td>Total School Dropouts in the Eight-State Southeastern Region</td>
<td>45</td>
</tr>
<tr>
<td>23.</td>
<td>Value Added by Manufacture, Eight Southeastern States and United States, 1929-1970</td>
<td>52</td>
</tr>
<tr>
<td>25.</td>
<td>Wages of Production Workers, Eight Southeastern States and United States, 1929-1970</td>
<td>54</td>
</tr>
<tr>
<td>27.</td>
<td>Number of Manufacturing Establishments, Eight Southeastern States and United States, 1929-1967</td>
<td>56</td>
</tr>
<tr>
<td>30.</td>
<td>Transport Characteristics of Various Transportation Modes</td>
<td>76</td>
</tr>
<tr>
<td>31.</td>
<td>Employment Attributable to Exports and Total Employment in the Private Economy, By Industry Group, 1960</td>
<td>82</td>
</tr>
<tr>
<td>32.</td>
<td>Estimated U. S. and Southeastern Exports of Agricultural Commodities</td>
<td>85</td>
</tr>
<tr>
<td>33.</td>
<td>Estimated U. S. and Southeastern Exports of Manufactured Products</td>
<td>86</td>
</tr>
<tr>
<td>34.</td>
<td>Estimated Exports of Manufactured Products from the Southeast</td>
<td>87</td>
</tr>
</tbody>
</table>
Preface

This study was conducted for the Economic Development Administration (EDA) under Section I. B. of Grant 04-6-09029-6. The judgments expressed in this report are those of the authors and do not necessarily reflect the views of the Economic Development Administration or of any other department or agency of the United States Government.

David Clifton was responsible for the overall direction of this study. Chapter contributions were made by Robert Cassell, Tze Chiang, David Clifton, Robert Collier, Harvey Diamond, George Dodson, William Howard, Philip Koos, Lilia Lara, Gaston Paretz, and John Weber. Assistance and valuable input also were received from Bernard Goss. Appreciation is expressed for the support of the Economic Development Administration which made this study possible.
Summary

The economic progress of the eight-state southeastern region compared with the nation between 1960 and 1970 is impressive. Employment, personal income, production wages, retail sales, value added by manufacture, and farm income are a few of many economic indices in which the southeastern region displayed annual growth rates higher than the United States. However, although the progress in the last decade has been substantial, the Southeast still lags behind the rest of the country in most key economic indicators.

Per capita income calculated on an area basis provides an indicator of the area's economic welfare and can be used to measure the extent to which a region trails the rest of the United States. The eight states in the Southeast have had a long history of low per capita incomes which have always been lower than the national average. In 1960 there was a per capita income gap of $641 between the U. S. and the Southeast, and this gap widened in absolute terms to $723 in 1970. However, in relative terms there was a dramatic improvement, with the ratio of the southeastern region to the U. S. climbing from 71% in 1960 to 82% in 1970. Nevertheless, these ratios still were lower than those for any other U. S. region. Unfortunately projected per capita income trends for the United States and the southeastern region to 1990 indicate an increase in the income gap in absolute terms and a slowing down of the rate of improvement in the region's per capita income as a proportion of the U. S. figure.

In the light of this situation, serious thought on the development of the southeastern region becomes imperative. Traditional preoccupation with particular programs and jurisdictions must give way to a broader concern. The primary consideration should be to maximize overall economic growth of the region and thereby improve its competitive position vis-a-vis the remainder of the United States. This objective would involve the concentration of effort, facilities, and investment in what are called "growth areas." These are sectors which are high in potential investment and employment opportunities. The term also would cover those industries which are growing more rapidly in the Southeast than in other regions and for which product demand is highly income-elastic. Concentrating public money and facilities in these areas would yield the greatest economic returns.
This report presents goals and programs for the different sectors of the region's economy based on the economic development problems and opportunities within the region. The sectors of the Southeast's economy which were investigated were agriculture, forestry, housing, human resources, industry, marine resources, tourism, transportation, and international trade and investment.

The need for a regional development effort is evident, but what organization would serve as the vehicle for implementation of such a development effort is not clear. At present there are two regional organizations which might provide the leadership needed in such an undertaking. The Southeastern Federal Regional Council serves the eight-state study area, and one of its responsibilities is to analyze regional problems. Another organization which could serve as the vehicle for regional development is the Southern Growth Policies Board. This organization was designed to help plan and direct the South's growth and is composed of 13 southeastern states.
INTRODUCTION

The region designated for study includes the southeastern states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. The states within this region share the common problem of a per capita income level that is below the national average. This income gap reflects the generally lower standard of living of individuals in the southeastern region as compared with those in the rest of the nation.

The objective of this report is to identify overall development goals for the southeastern region based on the economic development problems and opportunities within the region. The ultimate aim of an economic development program based on these goals is to raise the standard of living in the southeastern region to the national level.

This report is not intended to be a comprehensive analysis of the regional economy, but only to present suggested goals and programs for the different sectors of the region's economy. Each chapter, with the exception of the first two, discusses a specific economic sector and is organized under three major headings: background, goals, and programs.
RELATIVE PROGRESS IN THE SOUTHEASTERN REGION

In an absolute sense, nearly every available economic index indicates that over the years much growth has occurred in the eight-state Southeast. However, it should be recognized that regional progress is relative, not only historically within the region, but also compared with similar progress in other geographical areas. Both of these aspects must be considered in an evaluation of a region's economy and rate of development. This chapter will compare the southeastern region with the U. S. in terms of selected indices on population, employment, and economic activity. Because of its importance as an indicator and the need to provide an in-depth analysis, personal income is examined in the following chapter on the regional income gap.

Population

In 1970, there were more than 31 million people in the southeastern region, or 15.7% of the U. S. population. More than one-third of these people were located in Florida and North Carolina, the two most populous states in the region. A comparison of the population changes in the eight states, based on the latest two decennial censuses, is shown in Table 1. In the 1960-1970 decade, over 46% of the southeastern region's total increase in population occurred in Florida.

The migration statistics for the region, which show a net in-migration of 436,000 or 15.6% of the 1960 total population, would seem to indicate that the historical out-migration of people from the region has been reversed. However, a closer examination at the state level reveals that in-migration into Florida has been substantial, that Georgia migration has stabilized, and that the remainder of the southeastern states continue to have an out-migration problem. The migration trends indicate that the development problems associated with population growth and movement which face Florida are diametrically opposite to the problems of the remainder of the region.

Employment

During the 1960-1970 period, employment in the Southeast increased on the average of 2.9% each year as compared to 2.3% for the United States, as shown in Table 2. (Appendix A contains figures on employment by sector for each state, the southeastern region, and the U. S. for 1960 and 1970.) Florida and Georgia experienced a substantially higher growth, North Carolina and Tennessee slightly
Table 1
POPULATION AND ESTIMATED NET MIGRATION FOR THE EIGHT SOUTHEASTERN STATES, 1960-1970

<table>
<thead>
<tr>
<th>State</th>
<th>1970 (Census)</th>
<th>1960 (Census)</th>
<th>Change 1960-70</th>
<th>Estimated Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Alabama</td>
<td>3,444,165</td>
<td>3,266,740</td>
<td>+ 177,425</td>
<td>+ 5.4</td>
</tr>
<tr>
<td>Florida</td>
<td>6,789,443</td>
<td>4,951,560</td>
<td>+ 1,837,883</td>
<td>+37.1</td>
</tr>
<tr>
<td>Georgia</td>
<td>4,589,575</td>
<td>3,943,116</td>
<td>+ 646,459</td>
<td>+16.4</td>
</tr>
<tr>
<td>Kentucky</td>
<td>3,219,311</td>
<td>3,038,156</td>
<td>+ 181,155</td>
<td>+ 6.0</td>
</tr>
<tr>
<td>Mississippi</td>
<td>2,216,912</td>
<td>2,178,141</td>
<td>+ 38,771</td>
<td>+ 1.8</td>
</tr>
<tr>
<td>North Carolina</td>
<td>5,082,059</td>
<td>4,556,155</td>
<td>+ 525,904</td>
<td>+11.5</td>
</tr>
<tr>
<td>South Carolina</td>
<td>2,590,516</td>
<td>2,382,594</td>
<td>+ 207,922</td>
<td>+ 8.7</td>
</tr>
<tr>
<td>Tennessee</td>
<td>3,924,164</td>
<td>3,567,089</td>
<td>+ 357,075</td>
<td>+10.0</td>
</tr>
<tr>
<td>8-State Total</td>
<td>31,856,145</td>
<td>27,883,551</td>
<td>+ 3,972,594</td>
<td>+14.3</td>
</tr>
<tr>
<td>United States</td>
<td>203,184,772</td>
<td>179,323,000</td>
<td>+23,861,772</td>
<td>+13.3</td>
</tr>
</tbody>
</table>

1/ Based on population in 1960.

### Table 2

**AVERAGE ANNUAL PERCENTAGE CHANGE IN EMPLOYMENT BY SECTOR**

**FOR THE STATES, SOUTHEASTERN REGION, AND UNITED STATES, 1960-1970**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Alabama</th>
<th>Florida</th>
<th>Georgia</th>
<th>Kentucky</th>
<th>Mississippi</th>
<th>North Carolina</th>
<th>South Carolina</th>
<th>Tennessee</th>
<th>Total</th>
<th>U. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>-3.6</td>
<td>0</td>
<td>+2.3</td>
<td>-1.7</td>
<td>-0.5</td>
<td>+1.5</td>
<td>+0.6</td>
<td>-0.3</td>
<td>-1.2</td>
<td>-1.3</td>
</tr>
<tr>
<td>Contract Construction</td>
<td>+1.2</td>
<td>+4.1</td>
<td>+3.8</td>
<td>+3.7</td>
<td>+4.7</td>
<td>+4.8</td>
<td>+4.5</td>
<td>+3.4</td>
<td>+3.8</td>
<td>+1.6</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>+3.7</td>
<td>+5.7</td>
<td>+3.6</td>
<td>+4.6</td>
<td>+5.1</td>
<td>+4.1</td>
<td>+3.9</td>
<td>+4.8</td>
<td>+4.3</td>
<td>+1.5</td>
</tr>
<tr>
<td>Transportation &amp; Public Utilities</td>
<td>+1.1</td>
<td>+5.4</td>
<td>+4.6</td>
<td>+1.2</td>
<td>+1.8</td>
<td>+4.3</td>
<td>+4.6</td>
<td>+2.0</td>
<td>+3.5</td>
<td>+1.3</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>+2.6</td>
<td>+5.7</td>
<td>+4.7</td>
<td>+2.9</td>
<td>+2.6</td>
<td>+4.6</td>
<td>+3.8</td>
<td>+3.3</td>
<td>+4.2</td>
<td>+3.1</td>
</tr>
<tr>
<td>Finance, Insurance &amp; Real Estate</td>
<td>+2.7</td>
<td>+6.1</td>
<td>+5.8</td>
<td>+4.0</td>
<td>+5.6</td>
<td>+6.5</td>
<td>+4.0</td>
<td>+4.5</td>
<td>+5.2</td>
<td>+3.8</td>
</tr>
<tr>
<td>Services</td>
<td>+4.5</td>
<td>+8.2</td>
<td>+6.1</td>
<td>+6.2</td>
<td>+5.3</td>
<td>+6.5</td>
<td>+6.1</td>
<td>+5.2</td>
<td>+6.4</td>
<td>+5.7</td>
</tr>
<tr>
<td>Government</td>
<td>+3.1</td>
<td>+8.1</td>
<td>+6.0</td>
<td>+5.8</td>
<td>+5.0</td>
<td>+6.2</td>
<td>+5.5</td>
<td>+5.4</td>
<td>+5.8</td>
<td>+5.0</td>
</tr>
<tr>
<td>Farm</td>
<td>-4.2</td>
<td>-0.7</td>
<td>-4.5</td>
<td>-3.5</td>
<td>-4.4</td>
<td>-4.2</td>
<td>-6.0</td>
<td>-4.0</td>
<td>-4.1</td>
<td>-3.6</td>
</tr>
<tr>
<td>Total</td>
<td>+1.8</td>
<td>+5.7</td>
<td>+3.3</td>
<td>+2.0</td>
<td>+1.0</td>
<td>+2.5</td>
<td>+1.8</td>
<td>+2.6</td>
<td>+2.9</td>
<td>+2.3</td>
</tr>
</tbody>
</table>

higher growth, and Alabama, Kentucky, and South Carolina a lower growth in employment than the United States. Over the decade, Florida showed the largest percentage gain in employment and accounted for over 33% of the increase in total employment for the entire region. Compared with the United States, the southeastern region's employment during the decade showed impressive percentage gains in contract construction, manufacturing, and transportation and public utilities.

The most dramatic decrease in employment is the precipitate and unrelieved decline in farm employment. The trends to larger farms, automation, improved crops and procedures have all contributed to this development. The net result in the region has been the release of more than 730,000 farm workers to be absorbed by other employment sectors. The flow of these people from the rural areas to seek job opportunities in the urban centers has compounded the problems of the cities.

**Economic Activity**

Insight into the nation and extent of economic activity within the Southeast can be gained by reviewing the indicators in Table 3. The first set of indicators shows both the Southeast as a percent of the United States and the average annual percentage change in the indicator. Using the southeastern percentage of the nation's population as a standard of measurement, the relative position of the Southeast in employment, personal income, and other activities can be examined. For example, although the Southeast has 15.7% of the nation's population, the region accounts for only 12.7% of the nation's personal income. But during the decade from 1960 to 1970, the annual growth of personal income in the Southeast was 11.9%, compared to 7.0% for the nation.

The second set of indicators was constructed on a per capita basis (or its equivalent). These indicators show the Southeast as a percentage of the nation. For example, farm income per farm employee in the Southeast was only about 66% of the national figure.

-6-
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population&lt;sup&gt;1/&lt;/sup&gt;</td>
<td>15.7</td>
<td>Southeast 1.4</td>
</tr>
<tr>
<td>Employment&lt;sup&gt;2/&lt;/sup&gt;</td>
<td>14.9</td>
<td>U. S. 1.3</td>
</tr>
<tr>
<td>Personal Income&lt;sup&gt;3/&lt;/sup&gt;</td>
<td>12.7</td>
<td>Southeast 11.9</td>
</tr>
<tr>
<td>Wages of Production Workers&lt;sup&gt;4/&lt;/sup&gt;</td>
<td>13.5</td>
<td>U. S. 11.7</td>
</tr>
<tr>
<td>Farm Income&lt;sup&gt;5/&lt;/sup&gt;</td>
<td>15.6</td>
<td>Southeast 5.7</td>
</tr>
<tr>
<td>Value Added in Mineral Industries&lt;sup&gt;6/&lt;/sup&gt;</td>
<td>6.4&lt;sup&gt;a/&lt;/sup&gt;</td>
<td>Southeast 4.4&lt;sup&gt;b/&lt;/sup&gt;</td>
</tr>
<tr>
<td>Expenditures for New Plant and Equipment&lt;sup&gt;7/&lt;/sup&gt;</td>
<td>14.9</td>
<td>Southeast 16.9</td>
</tr>
<tr>
<td>Construction Contracts Awarded&lt;sup&gt;7/&lt;/sup&gt;</td>
<td>17.0</td>
<td>Southeast 13.7</td>
</tr>
<tr>
<td>Lumber Production&lt;sup&gt;8/&lt;/sup&gt;</td>
<td>19.6</td>
<td>Southeast 1.3</td>
</tr>
<tr>
<td>Electric Power Production, Total Utility and Industrial&lt;sup&gt;9/&lt;/sup&gt;</td>
<td>19.0</td>
<td>Southeast 9.6</td>
</tr>
<tr>
<td>Retail Sales&lt;sup&gt;10/&lt;/sup&gt;</td>
<td>13.6&lt;sup&gt;a/&lt;/sup&gt;</td>
<td>Southeast 7.0&lt;sup&gt;b/&lt;/sup&gt;</td>
</tr>
<tr>
<td>Deposits, All Banks&lt;sup&gt;11/&lt;/sup&gt;</td>
<td>9.1</td>
<td>Southeast 13.9</td>
</tr>
<tr>
<td>Long-Term Savings&lt;sup&gt;12/&lt;/sup&gt;</td>
<td>10.8</td>
<td>Southeast 15.9</td>
</tr>
<tr>
<td>Per Capita Personal Income</td>
<td>81.3</td>
<td>U. S. 7.0</td>
</tr>
<tr>
<td>Farm Income per Farm Employee</td>
<td>66.3</td>
<td>Southeast 10.4</td>
</tr>
<tr>
<td>Production Wages per Worker</td>
<td>79.3</td>
<td>U. S. 6.5</td>
</tr>
<tr>
<td>Per Capita Retail Sales</td>
<td>86.4&lt;sup&gt;a/&lt;/sup&gt;</td>
<td>Southeast 51.6&lt;sup&gt;a/&lt;/sup&gt;</td>
</tr>
<tr>
<td>Per Capita Bank Deposits</td>
<td>57.8</td>
<td>Southeast 51.6&lt;sup&gt;a/&lt;/sup&gt;</td>
</tr>
<tr>
<td>Per Capita Long-Term Savings</td>
<td>57.8</td>
<td>Southeast 51.6&lt;sup&gt;a/&lt;/sup&gt;</td>
</tr>
<tr>
<td>Value Added, Mining/Man Hour</td>
<td>51.6&lt;sup&gt;a/&lt;/sup&gt;</td>
<td>Southeast 78.1</td>
</tr>
<tr>
<td>Value Added, Manufacture/Man Hour</td>
<td>78.1</td>
<td>Southeast 78.1</td>
</tr>
</tbody>
</table>

REGIONAL INCOME GAP

As indicators of economic well-being, total and per capita income figures have become widely used in operating programs. An analysis of such income figures on an area basis would help bring out the extent to which a specific region lags behind the rest of the United States. The purpose of this chapter is to examine the income gap existing between the eight southeastern states and the rest of the United States and to look at some factors that could be responsible for this income differential.

The Southeast has had a long history of low per capita incomes which have always lagged behind the U. S. average. This condition has persisted until the present time. The gap has been narrowed at least in relative terms, although not in absolute terms.

The income situation for the years 1960 and 1970 is shown in Table 4. It will be noted that in 1960 the eight states together had total personal income of $44.1 billion, or 11.06% of the U. S. total, whereas they had 15.56% of the total U. S. population, thus confirming the belief that this part of the South is a low-income region. The situation had improved by 1970, when the region had $102.3 billion of personal income or 12.76% of the U. S. total, compared with 15.68% of the U. S. population. However, the region still had a greater share of population than its share of total personal income.

The per capita income figures give further evidence of the relatively low economic level in the region. In 1960 there was a gap of $641 between the U. S. and the eight-state per capita figures. This gap widened in absolute terms to $723 in 1970, although in relative terms there was a dramatic improvement. The ratio of the eight-state per capita personal income to the U. S. per capita personal income jumped from 71.06% in 1960 to 81.62% in 1970. But compared with other regions in the United States, these ratios are still the lowest.

It also should be noted that the U. S. per capita income figures include the eight-state per capita income figures, which tend to depress the former. Thus, if the eight-state per capita figures were omitted from the national per capita figures, the latter would become higher and, therefore, the gap between the U. S. and the regional per capita figures would correspondingly be wider. The result would be an increase in the gap from $641 to $758 in 1960 and from $723 to $871 in 1970.
<table>
<thead>
<tr>
<th>Region</th>
<th>Total Personal Income (million dollars)</th>
<th>Per Capita Personal Income (dollars)</th>
<th>% Change 1960-70</th>
<th>Total Personal Income As % of U.S.</th>
<th>Per Capita Personal Income As % of U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeast</td>
<td>44,100</td>
<td>102,269</td>
<td>1,574</td>
<td>3,210</td>
<td>132</td>
</tr>
<tr>
<td>Alabama</td>
<td>4,782</td>
<td>9,925</td>
<td>1,461</td>
<td>2,876</td>
<td>108</td>
</tr>
<tr>
<td>Florida</td>
<td>9,830</td>
<td>25,077</td>
<td>1,966</td>
<td>3,664</td>
<td>155</td>
</tr>
<tr>
<td>Georgia</td>
<td>6,357</td>
<td>15,434</td>
<td>1,610</td>
<td>3,354</td>
<td>143</td>
</tr>
<tr>
<td>Kentucky</td>
<td>4,668</td>
<td>9,990</td>
<td>1,532</td>
<td>3,099</td>
<td>114</td>
</tr>
<tr>
<td>Mississippi</td>
<td>2,548</td>
<td>5,755</td>
<td>1,169</td>
<td>2,597</td>
<td>126</td>
</tr>
<tr>
<td>N. Carolina</td>
<td>7,130</td>
<td>16,383</td>
<td>1,563</td>
<td>3,218</td>
<td>130</td>
</tr>
<tr>
<td>S. Carolina</td>
<td>3,297</td>
<td>7,614</td>
<td>1,378</td>
<td>2,933</td>
<td>131</td>
</tr>
<tr>
<td>Tennessee</td>
<td>5,488</td>
<td>12,091</td>
<td>1,536</td>
<td>3,075</td>
<td>120</td>
</tr>
<tr>
<td>New England</td>
<td>25,877</td>
<td>50,568</td>
<td>2,454</td>
<td>4,259</td>
<td>95</td>
</tr>
<tr>
<td>Mideast</td>
<td>99,542</td>
<td>189,288</td>
<td>2,579</td>
<td>4,453</td>
<td>90</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>86,130</td>
<td>165,425</td>
<td>2,370</td>
<td>4,098</td>
<td>92</td>
</tr>
<tr>
<td>Plains</td>
<td>32,029</td>
<td>61,234</td>
<td>2,076</td>
<td>3,741</td>
<td>91</td>
</tr>
<tr>
<td>Southwest</td>
<td>27,156</td>
<td>58,453</td>
<td>1,909</td>
<td>3,514</td>
<td>115</td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td>9,064</td>
<td>17,934</td>
<td>2,091</td>
<td>3,557</td>
<td>98</td>
</tr>
<tr>
<td>Far West</td>
<td>54,491</td>
<td>112,524</td>
<td>2,623</td>
<td>4,327</td>
<td>106</td>
</tr>
<tr>
<td>United States</td>
<td>398,561</td>
<td>801,493</td>
<td>2,215</td>
<td>3,933</td>
<td>101</td>
</tr>
</tbody>
</table>

An explanation for this income differential between the eight-state region and the rest of the nation can be found in a study which was undertaken to investigate the factors that differentiate the South from other regions. The major conclusion suggested by this regional study is that an income differential exists between the South and other regions, even when the data are properly controlled with respect to color, sex, residence, and size of community. This differential does not seem to be related to the occupational composition of the Southern labor force. The tentative conclusion arrived at is that other factors, such as the pay-and-price structure, the industrial structure, differences in productivity, or perhaps even imperfections in the competitiveness of the labor market, may account for the income differential between the South and the rest of the nation.

It is generally considered that the eight-state group has a cost of living which is somewhat below the U. S. average. It is therefore anticipated that adjustments for differences in price level would tend to reduce the income gap. However, according to the findings of Abner Hurwitz and Carlyle P. Stallings, who developed regional consumer price indexes from 1929 to 1953, variations in price level between states were not of sufficient magnitude to shift the position of most states from their relative levels in terms of current dollar per capita income. The eight-state region still remains at the bottom of the regional income ladder in spite of adjustments for price change, and little gap closing has been accomplished.

A more fruitful way of closing the gap could lie in more rapid income growth for the region, which already exceeds that for the national economy. In this regard, it is important to examine the factors underlying the regional income trends in order to find out which will contribute the most to shifts in personal income. One factor which accounts for regional income change would be the overall growth of the national economy. This effect reflects the fact


that the U. S. economy is made up of highly interrelated subeconomies, which makes possible the transmission of economic growth in one area to other areas of the nation.

A second factor would stem from differences between the income structure or "component-mix" of a region and that of the nation. If the regional economy has a large proportion of industries or types of income that are growing slowly nationally, then the regional income might grow at a below-average rate, even though each income source in the region was increasing at a better-than-average rate.

The third and final element in a region's income growth, the so-called regional share effect, would be due to the difference between the percentage change in an income component in the region and the percentage change in the same component nationally. An income component in the region which grows faster than its national counterpart will add to the region's overall growth relative to that of the nation.

The effects of all three factors have been measured for the different regions in the United States, and the results show that although the national growth effect has been most dominant, accounting for the largest proportion of personal income change for all regions, it is the regional share effect that is the most important factor in explaining differential regional income growth. In the interest of projecting regional economic growth, it therefore would be advantageous if the regional differences in the growth of the income components on which the regional share effect is based were to be the focus in regional planning.

In the case of the eight-state region under study, above-national-average advances, particularly in manufacturing payrolls, farm income, transportation, communications and public utilities, and wholesale and retail trade, which accounted for about 37% of the region's personal income in 1960, helped in the rapid rate of the overall income expansion of the eight states during the decade. (See Table 5.) Planning should put primary emphasis on these rapidly growing components of income.

The trend lines of the U. S. and the eight-state per capita income indicate a secularly increasing gap between the two in absolute terms. The rate of change in the region's income has been projected to decline secularly, whereas that of national income will be rising. Also, the rate of improvement
Table 5

<table>
<thead>
<tr>
<th>Income Source</th>
<th>Eight-State Region</th>
<th>United States</th>
<th>Percent Change</th>
<th>Percent Change</th>
<th>Ratio of Region/U. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages and Salaries</td>
<td>28,942</td>
<td>68,078</td>
<td>65.63</td>
<td>66.57</td>
<td>135</td>
</tr>
<tr>
<td>Farm</td>
<td>463</td>
<td>625</td>
<td>1.05</td>
<td>.61</td>
<td>35</td>
</tr>
<tr>
<td>Mining</td>
<td>354</td>
<td>565</td>
<td>.80</td>
<td>.55</td>
<td>60</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8,295</td>
<td>19,541</td>
<td>18.81</td>
<td>19.11</td>
<td>136</td>
</tr>
<tr>
<td>Transportation, Communications &amp; Public Utilities</td>
<td>2,262</td>
<td>4,869</td>
<td>5.13</td>
<td>4.76</td>
<td>115</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>5,279</td>
<td>11,419</td>
<td>11.97</td>
<td>11.16</td>
<td>116</td>
</tr>
<tr>
<td>Finance, Insurance &amp; Real Estate</td>
<td>1,327</td>
<td>3,133</td>
<td>3.01</td>
<td>3.06</td>
<td>136</td>
</tr>
<tr>
<td>Services</td>
<td>2,963</td>
<td>8,100</td>
<td>6.72</td>
<td>7.92</td>
<td>173</td>
</tr>
<tr>
<td>Government</td>
<td>6,141</td>
<td>15,330</td>
<td>13.92</td>
<td>14.99</td>
<td>150</td>
</tr>
<tr>
<td>Other Industries</td>
<td>99</td>
<td>184</td>
<td>.22</td>
<td>.18</td>
<td>86</td>
</tr>
<tr>
<td>Other Labor Income</td>
<td>1,030</td>
<td>3,754</td>
<td>2.34</td>
<td>3.67</td>
<td>264</td>
</tr>
<tr>
<td>Proprietor's Income</td>
<td>6,442</td>
<td>9,815</td>
<td>14.61</td>
<td>9.60</td>
<td>52</td>
</tr>
<tr>
<td>Farm</td>
<td>2,327</td>
<td>3,256</td>
<td>5.28</td>
<td>3.18</td>
<td>40</td>
</tr>
<tr>
<td>Nonfarm</td>
<td>4,115</td>
<td>6,559</td>
<td>9.33</td>
<td>6.41</td>
<td>59</td>
</tr>
<tr>
<td>Property Income</td>
<td>5,065</td>
<td>13,446</td>
<td>11.48</td>
<td>13.15</td>
<td>165</td>
</tr>
<tr>
<td>Transfer Payments</td>
<td>3,595</td>
<td>10,758</td>
<td>8.15</td>
<td>10.52</td>
<td>199</td>
</tr>
<tr>
<td>Less: Contributions for Social Insurance</td>
<td>976</td>
<td>3,584</td>
<td>2.21</td>
<td>3.50</td>
<td>267</td>
</tr>
<tr>
<td>Total Personal Income</td>
<td>44,100</td>
<td>102,269</td>
<td>100.00</td>
<td>100.00</td>
<td>132</td>
</tr>
</tbody>
</table>

in the region's per capita income as a proportion of the U. S. figure will slow down. All of these trends are evident in Table 6, which shows the per capita income of the U. S. and the eight-state region from 1929 to 1990. In the table, current dollar figures have been converted to 1967 dollars.

Table 6
PER CAPITA INCOME OF THE EIGHT-STATE REGION
AND THE U. S. FOR SELECTED YEARS, 1929-1990

<table>
<thead>
<tr>
<th>Year</th>
<th>Eight-State Region</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>727</td>
<td>1,458</td>
</tr>
<tr>
<td>1940</td>
<td>813</td>
<td>1,483</td>
</tr>
<tr>
<td>1950</td>
<td>1,372</td>
<td>2,065</td>
</tr>
<tr>
<td>1959</td>
<td>1,763</td>
<td>2,441</td>
</tr>
<tr>
<td>1969</td>
<td>2,733</td>
<td>3,416</td>
</tr>
<tr>
<td>1980</td>
<td>3,908</td>
<td>4,765</td>
</tr>
<tr>
<td>1990</td>
<td>5,201</td>
<td>6,166</td>
</tr>
</tbody>
</table>


In the light of this situation, a regional development plan becomes imperative if this income gap is to be dealt with successfully. In such a plan, traditional preoccupation with particular programs and jurisdictions must give way to a broader concern. The primary concern should be to maximize the impact of the plan on the overall economic growth of the region and thereby improve...
its competitive position vis-a-vis the rest of the United States. This objective will involve the concentration of effort, facilities, and investment in what are called "growth areas." They are areas which are high in potential investment and employment opportunities; they also cover those industries which are growing more rapidly than in other regions and for which product demand is highly income-elastic. Concentrating public money and facilities in these areas would yield the greatest economic returns. It is believed that a national development plan which takes into consideration the points discussed above will contribute toward shifting the region from the "disadvantaged" status to the "stably prosperous" one.

The need for a regional development effort is evident, but what organization would serve as the vehicle for implementation of such a development effort is not clear. At present there are two regional organizations which might provide the leadership needed in such an undertaking. The eight-state region comprises the area of operational responsibility for the Southeastern Federal Regional Council, one of the functions of which is regional problem analysis. The Southeastern Federal Regional Council Work Plan for Fiscal Year 1974 states as a goal "to develop an ongoing process of analyzing regional problems, synthesizing those results and translating those identifiable needs into workable plans capable of implementation." Another organization which could serve as the vehicle for regional development is the Southern Growth Policies Board. This organization was designed to help plan and direct the South's growth and is composed of 13 southeastern states.
Page intentionally left blank
Background

The United States provides an outstanding example of what an efficient agriculture can do for the economic growth of a country. Seven contributions of major importance can be identified: the release of workers to industry; lowering of food costs relative to income; an expanding market for industrial goods; large earnings from exports of farm products; sustained output during economic depressions; the meeting of war-time demands for food and fiber; and assistance to the economic development of other countries. American agriculture will continue to play a significant role in domestic economic growth. In this context, a brief review of the changes which have taken place in American agriculture in the past 40 years and of the relative position of the eight southeastern states compared with the rest of the nation is given here.

The technological revolution in agriculture has changed not only farming methods, but also the way of life in rural America. More and larger machinery and equipment have been used; more fertilizer, irrigation, insecticides, and herbicides have been applied; more breeding, seed selecting, and soil testing have been carried on; more specialized and commercialized farms have emerged; and more emphasis has been given to services and less to goods so that a rapid expansion of agribusiness has taken place. As a result of the technological changes, average farm size has steadily increased; farm employment and population have declined sharply; productivity measured in terms of output per acre, per animal breeding unit, and per man-hour has continued to rise; income per farm and per capita farm income have steadily risen; modern management techniques emphasizing efficient use of resources are required in managing farm business; and traditional farms are on the way out to make room for fewer but larger commercial farms thoroughly geared to the demands of the market.

Agricultural trends in the eight southeastern states have followed the same patterns of change as in the nation; however, the changes have not been as widespread or as extensive as in the rest of the nation. Farms in the region are less mechanized, less capital intensive, smaller in size, less prone to new developments and know-how, and the proportion of commercial farms is smaller. As a result, a larger proportion of farms in the region have been forced to close by regional competition. Cotton, which used to be the king crop in the
region, has moved westward, leaving behind many struggling traditional farms. Per capita farm income is substantially lower in the region than in the remainder of the nation. The eight southeastern states have contributed a major portion of the farmers migrating into northern industrial cities; unfortunately many of them were poorly educated and equipped and ended in metropolitan slums.

A comparison of major agricultural statistics between the eight-state region and the nation as a whole indicates a gap unfavorable to the region. The gap is even wider when these eight states are compared with the rest of the nation (the United States minus the eight states). The number of farms in the United States declined from 3,704,000 in 1959 to 2,585,000 in 1969, a 30% loss, while the eight states experienced a drop from 983,000 to 653,000, a 34% decline. The United States minus the eight states registered a decrease of about 29% in the same period. (See Table 7.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>3,704</td>
<td>3,153</td>
<td>2,585</td>
<td>30</td>
</tr>
<tr>
<td>Eight States</td>
<td>983</td>
<td>796</td>
<td>653</td>
<td>34</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>2,721</td>
<td>2,357</td>
<td>1,932</td>
<td>29</td>
</tr>
</tbody>
</table>


Land in farms in the United States totaled 1,120 million acres in 1959 and fell to 1,060 million acres in 1969, a decline of 5%. The loss in the eight states was 14%, compared with only 4% in the rest of the nation. (See Table 8.)

Average farm size in the United States increased from 302 acres to 410 acres between 1959 and 1969, a 36% gain. The eight states registered an increase from 130 acres to 168 acres, while the United States minus the eight states showed a rise from 365 acres to 492 acres. The average farm in the eight states is only about one-third the size of the average farm in the
Table 8


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1,120</td>
<td>1,106</td>
<td>1,060</td>
<td>5</td>
</tr>
<tr>
<td>Eight States</td>
<td>128</td>
<td>120</td>
<td>110</td>
<td>14</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>992</td>
<td>986</td>
<td>950</td>
<td>4</td>
</tr>
</tbody>
</table>


The remainder of the nation, and the rate of increase in size is less than the national average. (See Table 9.)

Table 9


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>302</td>
<td>352</td>
<td>410</td>
<td>36</td>
</tr>
<tr>
<td>Eight States</td>
<td>130</td>
<td>151</td>
<td>168</td>
<td>29</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>365</td>
<td>418</td>
<td>492</td>
<td>35</td>
</tr>
</tbody>
</table>


Farm employment in the United States decreased from 9,926,000 to 4,446,000 workers between 1950 and 1971, a loss of 55%. In the same period, the number of agricultural workers in the eight states declined from 2,740,000 to 1,711,000, a loss of 62%, while the United States minus the eight states lost only 52%. (See Table 10.)

Between 1959 and 1971, gross farm income in the eight states increased nearly as rapidly as in the rest of the nation, 59% and 60%, respectively. (See
Table 10

(in thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>9,926</td>
<td>7,057</td>
<td>4,523</td>
<td>4,446</td>
<td>55</td>
</tr>
<tr>
<td>Eight States</td>
<td>2,740</td>
<td>1,796</td>
<td>1,061</td>
<td>1,029</td>
<td>62</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>7,186</td>
<td>5,261</td>
<td>3,462</td>
<td>3,417</td>
<td>52</td>
</tr>
</tbody>
</table>


Table 11. However, when compared on a per farm basis or a per capita basis, farm income is still substantially less in the eight-state region than in the rest of the United States. Realized gross income per farm in the United States increased from $10,116 to $21,489 between 1959 and 1969. Corresponding figures for the eight states were $6,065 and $13,530, and those for the United States minus the eight states were $11,579 and $24,180. Gross income per farm in the eight states was only 60% of that in the nation in 1959 and 63% in 1969. Compared with the remaining states, this margin was even worse; the eight-state per farm income was only 52% of the rest of the nation in 1959 and 56% in 1969. (See Table 12.)

Table 11

(in millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>37,468</td>
<td>46,567</td>
<td>55,550</td>
<td>60,057</td>
<td>60</td>
</tr>
<tr>
<td>Eight States</td>
<td>5,962</td>
<td>7,127</td>
<td>8,835</td>
<td>9,490</td>
<td>59</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>31,506</td>
<td>39,440</td>
<td>46,715</td>
<td>50,567</td>
<td>60</td>
</tr>
</tbody>
</table>


-20-
Table 12

<table>
<thead>
<tr>
<th></th>
<th>1959</th>
<th>1964</th>
<th>1969</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$10,116</td>
<td>$14,769</td>
<td>$21,489</td>
</tr>
<tr>
<td>Eight States</td>
<td>6,065</td>
<td>8,953</td>
<td>13,530</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>11,579</td>
<td>15,019</td>
<td>24,180</td>
</tr>
<tr>
<td>Eight States as a Percent of U. S.</td>
<td>60</td>
<td>61</td>
<td>63</td>
</tr>
<tr>
<td>Eight States as a Percent of Remainder of U. S.</td>
<td>52</td>
<td>60</td>
<td>56</td>
</tr>
</tbody>
</table>


Per capita farm income as reflected by total cash farm income per worker in the United States, the eight states, and the United States minus the eight states is given in Table 13. It should be noted that the income represents gross cash income from farms without deducting any production costs and expenses. Total cash farm income per worker in the eight states was $1,654 in 1950 and increased to $8,196 in 1971. The income per worker in the region was only 49% of the rest of the nation and about 57% of the entire United States in 1950. Although the percentages increased to 60% and 66%, respectively, in 1971, the income gap is still very wide. (See details in Table 13.)

Table 13

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$2,896</td>
<td>$4,919</td>
<td>$11,706</td>
<td>$12,321</td>
</tr>
<tr>
<td>Eight States</td>
<td>1,654</td>
<td>2,918</td>
<td>7,765</td>
<td>8,196</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>3,369</td>
<td>5,603</td>
<td>12,914</td>
<td>13,563</td>
</tr>
<tr>
<td>Eight States as a Percent of U. S.</td>
<td>57</td>
<td>59</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>Eight States as a Percent of Remainder of U. S.</td>
<td>49</td>
<td>52</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

The degree of mechanization in farming in a given area can be indicated by the value of machinery and equipment per farm in that area. Table 14 gives number of farms, value of machinery and equipment, and average machinery and equipment value per farm in the United States, the eight states, and the balance of the nation. In 1969, the average machinery and equipment value per farm was $5,778 in the eight states compared with $15,166 in the United States minus the eight states and $12,792 in the entire nation. Although the average size of farm in the rest of the nation is nearly three times that of the region, the larger-scale operation offers many advantages such as lower per unit costs, including machinery and equipment, and greater flexibility in machinery purchasing and utilization.

Table 14
VALUE OF MACHINERY AND EQUIPMENT ON FARMS IN THE UNITED STATES, THE EIGHT STATES, AND THE UNITED STATES MINUS THE EIGHT STATES, 1969

<table>
<thead>
<tr>
<th></th>
<th>Value of Machinery and Equipment</th>
<th>Number of Farms</th>
<th>Average Value per Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$33,069,000,000</td>
<td>2,585,051</td>
<td>$12,792</td>
</tr>
<tr>
<td>Eight States</td>
<td>3,776,000,000</td>
<td>653,505</td>
<td>5,778</td>
</tr>
<tr>
<td>U. S. Minus Eight States</td>
<td>29,293,000,000</td>
<td>1,931,546</td>
<td>15,166</td>
</tr>
</tbody>
</table>


Goals

The poverty in the agricultural sector of the economy has been a major factor in dragging down the personal income level in the region. It is believed that the rural South is the most underdeveloped part of the most highly developed nation in the world. A dominant characteristic of poverty is its concentration in certain geographic regions of the nation and among certain occupations. Approximately one-half of the poor live in the South. In 1959, half of the poor resided in rural areas, defined as open country or towns with less than 2,500 population. Therefore, bringing up the income level of the rural South should be the major goal of any regional plan for economic development.

It is reported that about one-third of the farms in the South have been keeping up with technological changes, with resultant prosperity and farm
expansion. Another third of the southern farms hold their own without diminishing their business volume and farm size. However, the remaining one-third consists of marginal farms which are potential casualties of economic progress.

Two main objectives of agricultural programs for the eight-state region can be delineated: to assist those who can stay on farms in catching up with technological changes, and to provide job opportunities to those who have to leave the farm to make a living. Broadly speaking, four agricultural goals for the region can be outlined:

1. To increase the income level, per farm and per capita on farm, so that the farm income gap between the eight states and the rest of the nation can be narrowed and finally eliminated.

2. To greatly increase job opportunities for unemployed and underemployed farmers in the rural area of the eight states.

3. To make the rural sections of the region better places to live and to work.

4. To provide educational opportunities and technical know-how to farmers and to provide vocational training in nonfarm skills.

Programs

In realizing the goals outlined above, agricultural programs for the region should be examined and specified. However, programs can be complex and controversial because this nation is approaching the threshold of a major policy change in agriculture. The basic agricultural policy of the United States since the 1930's has been price support of major crops and the soil bank program for the purpose of limiting production in the face of falling agricultural prices and excessive farm production capacities. But the nation's agricultural outlook today is vastly different from the old days. The United States has become the richest and strongest nation on earth. At the same time, her farm land has become the breadbasket for the world. For example, the recent large purchases of wheat, corn, soybeans, and cotton by the U.S.S.R. and the People's Republic of China, causing a chain reaction of soaring domestic prices for agricultural commodities, vividly indicate the need of a major agricultural policy change. In the complex international interdependence in trade and politics today, this nation will continue to play a major role in supplying food and fiber to other countries. The agricultural programs proposed for the southeastern region must be considered in this context.
The past trends in agricultural change will continue. The key words are fewer farms but larger, fewer farm workers but more mechanization, more commercialized farms, and more service-oriented agribusiness. Shifts in resource use, largely in response to advances in technology and changes in the relative costs of inputs, have resulted in the replacement of labor and, to some extent, land with machinery and equipment, fertilizer, chemicals, and other nonfarm resources. These inputs will continue to substitute for increasingly dear labor and land. Recognizing these trends, farm programs suggested below follow these changes:

(1) Make loans available, preferably low-interest and long-term, to farmers for qualified projects involving capital investments or technical improvements. Commercial capital sources can be tapped by using government guarantee methods.

(2) Make loans available to qualified agribusiness in rural areas, both existing and proposed enterprises. Agribusiness may include feed lots for cattle, meat and poultry processing plants, vegetable processing plants, feed processing plants, horticulture and greenhouses, and the like. Agribusiness also should include agriculture-related industries such as fertilizer plants, farm chemicals, farm machinery, and various wood-using plants.

(3) Encourage and assist in the establishment and expansion of specialized commercial farms for meeting domestic and foreign market demand. Several areas of specialization with good growth potential are described below:

**Beef and Cattle.** Almost one-third of the total cash receipts from farming come from meat animals. Beef cattle is the dominant species. The projected continued rise in personal income in the nation indicates that the demand for beef will rise accordingly. The region has adequate rainfall with moderate temperatures, and is suitable for pasture and cattle farms.

**Soybeans.** The soybean is a versatile product with a high protein content. It is the basic material used in processing feeds for poultry and animals in this country, and it is one of the major sources of food protein and vegetable oil in many foreign countries. The production of soybeans in the United States has had a fifteenfold increase over the past three decades, and soybeans have become second only to corn in farm value of major crops. The demand for soybeans is so strong that the market price has tripled in the past year and the futures market for soybeans in Chicago was suspended recently. Southern varieties have been developed and the acreage in the South has expanded rapidly.
However, the volume produced in the region is still small compared with northern states. Efforts should be made to expand regional output further.

**Poultry.** The southeastern region is the leading poultry-producing area in the nation, and poultry production and processing has become the dominant industry in many rural localities in the region. Exports of processed poultry meat to foreign countries have become important in recent years, and the region has a large enough base for further expansion. Emphasis should be given on breeding new varieties and developing new raising methods which would produce a meat suitable for foreign markets.

**Vegetable Production for Processing Purposes.** Most of the vegetables grown in the southeastern region are for the fresh market, which is subject to glut and fluctuation in price during the harvest season. Contract farming of southern vegetables in conjunction with leading national brand-name companies in the canning and frozen foods fields should be encouraged and assisted. In contract farming leading companies generally maintain strict control over seed selection; timing of planting and harvesting; uses of fertilizer, insecticides, herbicides, and irrigation; and kind of machinery and equipment used. The purpose is quality control in the process of cultivation in order to attain the desired product quality and per unit yield. Through the infusion of the technical know-how and scientific management of large companies, many of the weaknesses of southern farms can be remedied. In addition, the establishment of large vegetable processing plants in a given area would be an asset to the local economy. The need for vegetable processing plants can be vividly demonstrated by the statistics given in Table 15.

Acreage of commercial vegetables for processing in the eight states constituted only 5% of total commercial vegetable area compared with 52% in the nation and up to 87% in the North Central Region. A program to promote contract farming is needed in the Southeast.

(4) Provide more vocational training programs in nonfarm skills so that unemployed and underemployed farmers can be absorbed into nonfarm trades.

(5) Program research activities and extension services of state colleges and universities, as well as all levels of government programs, to work closely with farmers and assist them in adapting to the technological and structural changes of the agricultural world.
Table 15
COMMERCIAL VEGETABLES: ACREAGE OF PRINCIPAL CROPS
BY REGION AND THE UNITED STATES, 1971
(in acres)

<table>
<thead>
<tr>
<th>Region</th>
<th>For Fresh Market</th>
<th>For Processing</th>
<th>Total</th>
<th>Processing % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Atlantic</td>
<td>155,780</td>
<td>157,640</td>
<td>313,420</td>
<td>50</td>
</tr>
<tr>
<td>North Central</td>
<td>114,420</td>
<td>738,350</td>
<td>852,770</td>
<td>87</td>
</tr>
<tr>
<td>Western</td>
<td>572,510</td>
<td>523,080</td>
<td>1,095,590</td>
<td>48</td>
</tr>
<tr>
<td>Eight States</td>
<td>428,490</td>
<td>23,212</td>
<td>451,702</td>
<td>5</td>
</tr>
<tr>
<td>United States</td>
<td>1,534,800</td>
<td>1,645,100</td>
<td>3,179,900</td>
<td>52</td>
</tr>
</tbody>
</table>

1/ The eight states replace the South Atlantic and South Central regions, which are omitted from the table. The eight states comprise about 80% of the two omitted regions' area.


(6) Make loans available for public services, such as roads, hospitals, medical centers, schools, and utilities, in rural areas. In many instances, it will be necessary to take a multi-county approach in which several counties will share these public services from a centralized location. A system of multi-county centers should be mapped out to counter the problem of sparse population in many rural counties in the region.
Background

The South supplies nearly one-half of the round-wood needs of the nation on a sustained basis. The region's share will continue to rise because other regions do not have the growth conditions necessary to support a large increase in timber production. According to The South's Third Forest, the timber cut in the South in the year 2000 will be 2.3 times the current cut. To meet this demand, annual growth will have to total 13 billion cubic feet, nearly 70% more softwood and 40% more hardwood than in 1968. The wood will have to be grown on fewer acres because forest land is still being claimed for the needs of an increasing population, such as urban expansion, highways, and recreational facilities.

In 1968, the federal government set a 10-year housing goal of 26 million new units -- almost double the number constructed over any comparable period in the past. In addition, the amount of lumber required to build the average American home rose from 10,000 to 12,000 board feet during the 1960's and there were corresponding increases in plywood demand. And housing is just one of many products of trees which have become increasingly important to human existence. The growing list includes furniture, paper bags, blotters, stationery, envelopes, charcoal, sanitary tissues, wallpaper, alcohol, medicine, anti-freeze, furniture polish, soap, glue, clothing, paper napkins and towels, newsprint, soil conditioner, egg and milk cartons, and many more. Will there be enough lumber, plywood, and other wood products to meet these demands? The nation's forest industries already are hard pressed to meet the demand for these products today. The South is one of the three forest regions (besides the North and the West) in the nation. Since it offers potential timber growth conditions not enjoyed by other regions, the South must provide the majority of the nation's wood products by the year 2000, producing a volume more than twice as great as its current output.

1/ The eight states minus Kentucky, plus Virginia, Arkansas, Louisiana, and a small part of eastern Oklahoma and Texas.

It becomes increasingly clear that projected demand can be met only through sound forest management practices, especially by noncommercial private timber owners, who constitute about 70% of the region’s timber ownership. Annual growth will have to increase from 0.7 to 1.2 cords per acre on forest industry and national forest lands. On noncommercial private forest lands, the growth will have to be boosted from less than one-half to two-thirds of a cord per acre. The main task is to induce thousands upon thousands of small timberland owners to practice sound forest management. To accomplish this, programs to encourage sound forest management practices and fuller utilization of timber resources must be carried out in the region.

Utilization of wood wastes is another important task confronting the forest industry in the region. Wood wastes generated by logging operations, sawmills, pulp mills, and a whole range of secondary wood manufacturing are tremendous. According to an estimate, wood wastes constitute about one-half of a tree when it is cut and processed into end products. It is believed that the degree of wood waste utilization in the South is less than on the West Coast because of smaller woodworking units in the South and the lack of research and promotional activities in the area. Proper wood waste utilization not only would increase the revenue of wood manufacturing concerns, but also would conserve timber resources in the region.

Cull trees and undesirable species occupy a large part of the forest space in the region. Removal of cull trees and undesirable species from the forests would provide room for the growth of healthy commercial species or for the planting of new seedlings. At the same time, cull trees and undesirable species can be processed into many useful products. However, the costs of removing cull trees and undesirable species from the forest can be high, and means should be devised to solve this problem. On the other hand, the costs would be a one-time outlay; once cull trees and undesirable species were removed and replaced by desirable trees, the forests would be much easier to manage later on.

Goals

Three main regional forestry goals are outlined below:

(1) To achieve a fuller utilization of timber resources so that the income of timber owners as well as wood-using industries can be enhanced.
(2) To put unmanaged and undermanaged timber lands in the region under the hands of sound forest management.

(3) To meet the demands upon the region made by national requirements for round wood.

Programs

Programs for achieving the forest goals are suggested as follows:

(1) Conduct a region-wide study of forest management practices by non-commercial timberland owners in the region and recommend programs for assisting these timberland owners to actively practice sound forest management.

(2) Establish a regional forest resource council, composed of representatives of government agencies, universities and colleges, forest industries, and private timber owners. The main functions of the council are suggested below:
   (a) Establish forest management goals and guidelines for timberland owners to follow.
   (b) Recommend programs for inducing timberland owners to practice sound forest management.
   (c) Coordinate with government agencies in assisting small timberland owners.
   (d) Raise funds for carrying out various programs recommended by the council.

(3) Increase federal and private financial assistance for tree planting, timber stand improvement, and fire control. This could be accomplished in part by reapportionment of federal funds presently allotted to agricultural cost-sharing programs but directed at crops other than trees.

(4) Create privately sponsored associations of landowners to extend forest management to tracts which individually are too small to justify the expense of forestry. Private interests could provide technical advice along with markets for harvest. Services of consulting foresters could be extensively utilized.

(5) Arrange lease arrangements between industry and small owners to overcome the problem of owner indifference to lack of early returns from forestry investments. Under such arrangements, small owners would be assured regular annual income while their timber crops matured. Owners, in turn, would pledge their lands to timber growth and management.
(6) Provide tax incentives. State and local taxes should be equitable and related to actual growth capacity. A low-capacity site should not be taxed to the same extent as a high-capacity site. Treatment of income from timber growth as a capital gain should be continued.

(7) Strengthen state forestry agencies. The main thrust of the recommended efforts must be directed through state organizations. Adequate funding and personnel should be provided to enable these agencies to carry out their responsibilities.

(8) Grant public funds to research and development agencies in the region to study problems concerning wood-waste utilization.

(9) Provide loans for establishing wood-using industries, especially such high-technology and high-income industries as furniture, pine plywood, newsprint, wood particleboard, hardboard, millwork, and pulp and paper.

(10) Establish a large Forest Product Research Laboratory sponsored by the U. S. Forest Service in the region. The laboratory would devote its entire service toward southern species and forest problems associated with the region. Since the region supplies one-half of the nation's round-wood needs and its share will continue to rise in the future, the region deserves such a facility.
It is becoming increasingly apparent that housing is indeed one of the major economic elements of any region in terms of its effect upon the total local economy, its influence upon the attraction of industry, and its relationship to the availability of the cultural or social amenities. Housing can and should be classed as an economic phenomenon first and a social phenomenon second, as its overall relation to economics is the strongest tie. Therefore, the major thrust of this chapter will be directed toward the economics of housing and its related factors rather than on purely social ramifications. Housing in the southeastern region will be considered as to its past and current status, both in absolute terms and compared to housing in the U. S. as a whole.

Background

Table 16 displays data on availability, use, and conditions of housing in the eight southeastern states in 1960 and 1970. Included are those indicators pertinent for assessing the housing picture in the region and for comparing the relative status of each state, the region, and the nation.

Population in households increased by over 3 million in the southeastern region during the 1960-1970 decade -- a 13.2% gain compared with 12.6% for the nation. Florida had the largest percentage increase in population in households with 36.9%, followed by Georgia (15.1%), North Carolina (10.5%), Tennessee (9.3%), South Carolina (7.5%), Kentucky (5.0%), and Mississippi (0.1%). Total occupied units rose by over 2 million in the Southeast during the decade, for a 26.2% gain compared with 19.7% for the nation. While the states within the region all showed increases in both population in households and total occupied units, the greatest gain occurred in Florida with its building boom and retirement settlement lure. When settlement patterns are considered (e.g., Atlanta and other cities with over one-half the state's population in their environs), the largest increases in both population in households and total occupied units can be traced to those states that are more urban in nature and development (e.g., Florida, Georgia) than those states with a rural orientation (e.g., Mississippi).

The increase in the Southeast of 13.2% in population in households compared to a 26.2% rise in total occupied units indicates an improvement in the housing situation. A more direct measure of the region's improvement is
Table 16

<table>
<thead>
<tr>
<th></th>
<th>Population in Households</th>
<th>No. of Households or Total Occupied Units</th>
<th>Population per Household</th>
<th>Owner-Occupied Units (percent)</th>
<th>1.01 Persons per Room or More (percent)</th>
<th>Telephone Available (percent)</th>
<th>With All Plumbing Facilities (percent)</th>
<th>All Housing Units</th>
<th>Housing Vacancies (percent)</th>
<th>Vacancies for Sale or Rent with All Plumbing Facilities (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alabama</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>3,239,355</td>
<td>884,116</td>
<td>3.7</td>
<td>59.7</td>
<td>19.4</td>
<td>59.2</td>
<td></td>
<td>967,466</td>
<td>6.7</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>3,363,565</td>
<td>1,034,113</td>
<td>3.3</td>
<td>66.7</td>
<td>11.2</td>
<td>78.2</td>
<td>84.3</td>
<td>1,120,220</td>
<td>7.2</td>
<td>72.9</td>
</tr>
<tr>
<td><strong>Florida</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>4,834,255</td>
<td>1,550,414</td>
<td>3.1</td>
<td>67.5</td>
<td>12.4</td>
<td>68.1</td>
<td></td>
<td>1,776,961</td>
<td>9.2</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>6,618,475</td>
<td>2,284,786</td>
<td>2.9</td>
<td>68.6</td>
<td>9.0</td>
<td>81.4</td>
<td>95.2</td>
<td>2,526,612</td>
<td>8.2</td>
<td>92.5</td>
</tr>
<tr>
<td><strong>Georgia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>3,868,325</td>
<td>1,070,325</td>
<td>3.6</td>
<td>56.2</td>
<td>18.4</td>
<td>61.7</td>
<td></td>
<td>1,170,039</td>
<td>6.9</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>4,452,116</td>
<td>1,369,225</td>
<td>3.3</td>
<td>61.1</td>
<td>10.7</td>
<td>79.8</td>
<td>87.8</td>
<td>1,470,557</td>
<td>6.6</td>
<td>79.4</td>
</tr>
<tr>
<td><strong>Kentucky</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>2,971,255</td>
<td>851,867</td>
<td>3.5</td>
<td>64.3</td>
<td>17.1</td>
<td>61.5</td>
<td></td>
<td>925,572</td>
<td>6.6</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>3,118,607</td>
<td>983,665</td>
<td>3.2</td>
<td>66.9</td>
<td>10.6</td>
<td>78.1</td>
<td>81.1</td>
<td>1,064,451</td>
<td>7.2</td>
<td>64.7</td>
</tr>
<tr>
<td><strong>Mississippi</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>2,156,352</td>
<td>568,070</td>
<td>3.8</td>
<td>57.7</td>
<td>23.5</td>
<td>45.3</td>
<td></td>
<td>628,945</td>
<td>7.2</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>2,159,220</td>
<td>636,724</td>
<td>3.4</td>
<td>66.3</td>
<td>15.1</td>
<td>67.4</td>
<td>77.3</td>
<td>699,150</td>
<td>8.7</td>
<td>68.4</td>
</tr>
<tr>
<td><strong>N. Carolina</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>4,427,036</td>
<td>1,204,715</td>
<td>3.7</td>
<td>60.1</td>
<td>17.2</td>
<td>58.5</td>
<td></td>
<td>1,322,957</td>
<td>6.7</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>4,893,113</td>
<td>1,509,564</td>
<td>3.2</td>
<td>65.4</td>
<td>10.2</td>
<td>77.4</td>
<td>85.7</td>
<td>1,641,222</td>
<td>6.7</td>
<td>73.5</td>
</tr>
<tr>
<td><strong>S. Carolina</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>2,312,841</td>
<td>603,551</td>
<td>3.8</td>
<td>57.3</td>
<td>20.8</td>
<td>55.3</td>
<td></td>
<td>678,379</td>
<td>8.5</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>2,486,106</td>
<td>734,373</td>
<td>3.4</td>
<td>66.1</td>
<td>12.3</td>
<td>75.6</td>
<td>82.6</td>
<td>815,123</td>
<td>8.7</td>
<td>76.0</td>
</tr>
<tr>
<td><strong>Tennessee</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>3,499,787</td>
<td>1,003,301</td>
<td>3.5</td>
<td>63.7</td>
<td>16.2</td>
<td>68.1</td>
<td></td>
<td>1,084,365</td>
<td>6.3</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>3,824,137</td>
<td>1,213,187</td>
<td>3.2</td>
<td>66.7</td>
<td>9.7</td>
<td>80.8</td>
<td>86.5</td>
<td>1,300,908</td>
<td>6.5</td>
<td>75.4</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>27,309,206</td>
<td>7,736,359</td>
<td>3.5</td>
<td>61.6</td>
<td>17.2</td>
<td>61.3</td>
<td></td>
<td>8,554,639</td>
<td>7.4</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>30,915,339</td>
<td>9,765,637</td>
<td>3.2</td>
<td>66.1</td>
<td>10.6</td>
<td>78.5</td>
<td>86.9</td>
<td>10,638,243</td>
<td>7.4</td>
<td>78.9</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>175,263,469</td>
<td>53,023,875</td>
<td>3.3</td>
<td>61.9</td>
<td>11.5</td>
<td>78.5</td>
<td></td>
<td>58,326,357</td>
<td>6.1</td>
<td>-</td>
</tr>
<tr>
<td>1970</td>
<td>197,399,913</td>
<td>63,449,747</td>
<td>3.1</td>
<td>62.9</td>
<td>8.2</td>
<td>87.3</td>
<td>94.0</td>
<td>68,679,030</td>
<td>6.2</td>
<td>86.6</td>
</tr>
</tbody>
</table>

population per household, which decreased from 3.5 in 1960 to 3.2 in 1970 while the nation experienced a decline from 3.3 to 3.1. Population per household in the states within the region ranged between 3.1 and 3.8 in 1960 and between 2.9 and 3.4 in 1970. These reductions during the decade give an indication that tremendous strides toward the national profile have been made and that the region is attuned to urban advancement while the rural scene is diminishing.

An examination of data on the percentage of owner-occupied units reveals that over the 10-year period the nation experienced a very small increase of 1% while the Southeast had an increase of 5.5%. The southeastern proportion of owner-occupied units was slightly less than the national figure in 1960, but because of the substantial gain during the decade, the southeastern percentage of owner-occupied units rose to 66.1% compared with the national increase to 62.9%. In 1960 only the states of Florida, Kentucky, and Tennessee in the region had a higher percentage of owner-occupied units than the nation, but in 1970 all states were above the national figure with the exception of Georgia. The largest percentage increase for a state within the region was 8.8% in South Carolina, which can be attributed, in large part, to stepped up activity in such areas as the rural Farmers Home Administration program.

The percentage of units with 1.01 persons per room or more is, in general, a good measure of housing size. In 1960, the relative position of the Southeast was poor, with 17.2% of the units having 1.01 persons per room or more compared with only 11.5% in the nation. The southeastern situation improved in the following decade, when it experienced a reduction of 6.6% compared with the national figure of 3.3%. The proportion of units with 1.01 persons per room or more in the individual southeastern states ranged from 12.4% to 23.5% in 1960 and from 9.0% to 15.1% in 1970. All of the states within the region had a greater percentage of overcrowding than the nation in both 1960 and 1970. However, in general, the overcrowding in housing within the Southeast improved during the decade and did not appear to be the problem in 1970 that it was in 1960.

The proportion of housing units with all plumbing gives an insight into the progress in the housing situation in the region. In 1970 Florida, with 95.2% of units with all plumbing, was the only state within the region to exceed the national figure of 94%. The Kentucky, South Carolina, and Mississippi percentages of units with all plumbing were at least 10% less than the national figure. This divergence can be traced mainly to the poor housing in the Appalachian
region of Kentucky, the delta area of Mississippi, and the coastal plains of South Carolina.

Total housing units increased by over 2 million in the Southeast between 1960 and 1970 -- a 24.4% increase compared with 17.8% for the nation. The pattern here is very similar to and parallels that of the findings in the analysis of total occupied units. There was nominal change in the percentage of housing vacancies in the nation and no change in the percentage for the southeastern region during the 1960 decade. The region and individual states showed higher percentages of housing vacancies than the nation in both 1960 and 1970. Only Florida and Georgia experienced a decrease in the percentage of housing vacancies over the 10-year span. When 1970 vacancies for sale or rent with all plumbing facilities are considered, the region's 78.9% was below the national figure of 86.7%. Only Florida was above the national figure, and Mississippi and Kentucky again showed severe problems in the lack of available units with all plumbing.

An indicator of economic well-being and the degree to which an area has been enmeshed in the modern industrial economy is telephones. The telephones available in the southeastern region between 1960 and 1970 increased 17.2% compared with a 8.8% increase for the nation. Although the Southeast showed a substantial gain compared to the nation, the proportion of housing units with telephones available in 1970 was only 78.5% in the Southeast compared with 87.3% for the nation. Significant increases in telephone availability occurred in Mississippi (22.1%), South Carolina (20.3%), Alabama (19.0%), North Carolina (18.9%), and Georgia (18.1%). Only two states within the region, Mississippi and South Carolina, fell 10% or more below the national percentage of telephones available in 1970, while this was true of all eight states in 1960.

The following conclusions can be summarized from the above review of the indicators on the housing situation which exists in the states, the southeastern region, and the United States:

(1) There has been a notable increase in persons in households and in occupied units in the region.

(2) Ownership of occupied units exceeds the national percentage in all states of the region but Georgia. Georgia's unenviable position (last in both 1960 and 1970) in this regard should be closely examined. Legislation and an active program could go far to remedy this. Such a program must have the
support of the Governor and implementation. This program can be done with little or no cost to the state (the current Coastal Plains program is a start).

(3) Overcrowding has decreased, but when compared to the nation, it is still high in the region and its states.

(4) The region has made great strides toward entering the mainstream of the national economy as indicated by the advance in telephone availability.

(5) While plumbing facilities in units were not tabulated in 1960, cursory examination of the census data and empirical knowledge indicate great progress in the region toward attainment of this feature.

(6) Vacancies do exist at a higher rate than in the nation, and this is healthy where such units have all plumbing and are habitable. In fact such a situation is necessary if economic development is to be a reality.

(7) South Carolina has had considerable progress in the housing area, according to the housing indicators. While 68% of the labor force in this state is blue-collar, it has been specifically trained. These employed persons have achieved new productivities that have stimulated new investments from the private sector, with consequent economic growth. This new employment and economic growth is, in turn, reflected in the tabular data on housing. The successful vocational-technical training program of the state proves that people in the Southeast can be trained and that they will work in any type of high-paying industry. Once so employed, an immediate reaction on the part of these formerly underemployed and unemployed people is a rapid rise in standard of living, including the basic needs of housing, food, and other important consumables. Finally, the state also has taken an active rather than a passive role in housing, and programs such as that of FmHA (502) have been fully utilized.

Based on this overview, it is apparent that Mississippi still needs much work in the housing field to achieve its proper place among the states of the region; the Southeast is comparable to the U. S., and even ahead of it, in progress over the past 10 years when the foregoing indicators are considered, yet still has much catching up to do; and while vacant housing with plumbing exists, it may not be ideally located in relation to development needs.

In addition, empirical knowledge of the region would indicate there is much unsatisfactory housing and many associated problems in the rural areas of these states. Economic planners should be cognizant of and seek the wide array
of information already available in housing; this information plus allied expertise should then be used to arrive at an implementable housing plan that can abet the economic and other developmental activity in the Southeast.

Goals

Specific goals should be set for the region as a whole and for each state. Only general goals that apply to all states in the region are listed below. They are:

(1) To assure a sound home and healthy environment for every citizen in the region.
(2) To supply adequate quantities of rental and saleable properties in all price ranges, with particular emphasis on the nonmetropolitan and rural areas of the region.
(3) To provide adequate and suitable land for residential development.
(4) To provide the necessary controls to assure healthy and proper development of residential areas.
(5) To upgrade jobs to close the income gap and thus help people become capable of upgrading their housing.
(6) To supply those utilities and other associated amenities needed to create a pleasant residential living environment.
(7) To establish financial resources, preferably at the state level, so that loan money can be available for those in the moderate and lower income brackets.
(8) To formulate plans of action on the state level that can be implemented and solve those many problems associated with housing of the citizenry.
(9) To seek a scheme that will bring the many fragmented segments of the housing industry together in a united effort.
(10) To establish a communications system to assure dissemination of pertinent information to all segments of the housing industry from creation of housing components to consumer.

Programs

In order to attain the above goals, the following programs are suggested:

(1) Draft a statewide plan based on input from governmental sub-units such as local governments or areawide planning agencies (EDD's, APDC's, COG's, etc.). Within this plan, assess problems, obstacles, and needs; then set goals, objectives, and courses of action to meet those needs.
(2) Create and operate a statewide information delivery system that would provide a communications link with all those involved in housing from creating the product to selling it to the consumer.

(3) Establish a program of technical assistance that would provide services to builders, developers, manufacturers, and consumers. This program would cut red tape and thus enable lower-priced homes to be built.

(4) Inventory available and suitable residential land and program it just as industrial sites are handled so that access can be had by developers with minimal research outlay on their part.

(5) Establish legislation that would permit use of state retirement funds for a "Fanny Mae" (FNMA) program operation at a state level. This program could lead to higher returns on retirement fund investment, involve local private financial sources, and make money available for home loans.

(6) Establish legislation setting reasonable norms in the areas of land use, codes, and other constraints that currently have too much local variation. Such statewide standards would eliminate local whims and pave the way for more housing opportunities.

(7) Utilize any and all programs that can lead to solving of the housing crisis and housing problems facing the region and its states today.

(8) Recognize the important role of housing as an economic factor in the community development process.
HUMAN RESOURCES

The southeastern region's human or manpower resources are quite likely its most valuable economic asset. Certainly manpower resources constitute one of the prime determinants in the expansion or location decisions of most industrial and commercial firms. Conversely, the ultimate purpose of all regional economic development should be to upgrade human resources, develop skills, increase incomes, create new payrolls, and to raise standards of living.

Since people are the primary and most important element in the economic development process, those responsible for economic development within the eight-state southeastern region must have a clear understanding of people -- as human resources and as potential manpower resources. Economic developers and planners for too long have taken human resources within a region for granted, never thinking any further than the words "population" and "numbers." But a region's human resources are more than "numbers," they are made up of many elements with many different characteristics -- involving age, sex, race, intelligence, skills, background, temperament -- and with many complex problems.

The difference between human resources and potential manpower resources may be simply a matter of instruction or training. When segments of a region's human resources have been given skill or job training, they may be considered potential manpower resources. From an economic point of view, they then are ready to be used in transforming other regional resources into goods and services. But without education or job training, human resources cannot properly produce goods and services.

Background

There are many complex problems associated with regional human resources development. No one person or agency in the United States specifically plans the work future of our human resources. The work future of the human resources in the U. S. is shaped by thousands of individual decisions on the part of employers, other workers, students, union representatives, government officials, and educators.¹/ A region's manpower resources cannot be compared with neatly stacked cord wood, ready and available upon the employer's request.


-39-
Within the present system, work force change is inevitable. Many factors can cause drastic, unforeseen changes in the labor supply picture. The advent of a big industrial employer, for example, can virtually absorb a community's entire unemployed population. The departure of a large employer, on the other hand, can leave a community with hundreds of excellent workers who were reluctant to move with their relocating employer.

U. S. Census and U. S. Department of Labor data and information can and should be used to display historical information on a region's total population, civilian work force, number of employed, work force participation rate, number of unemployed, and the unemployment rate. Since these statistics reveal some of the problems and needs of the southeastern region, they are discussed below. But it should be borne in mind that this information only provides a starting point for the regional economic developer.

The potential size of the region's labor force can be estimated from the number of individuals living in the Southeast who are 16 years old and older. Tables 17 and 18 show the southeastern region's potential labor force and the actual number of individuals in the labor force. The Southeast's male labor participation rate (73.8%) was slightly lower than the nation's, while the female labor participation rate (41.3%) was almost the same as the national figure.

A region's work force is composed of the employed and unemployed. Employers may expect to draw their employees from three groups -- the employed and underemployed, the unemployed, and new entrants to the work force:

(1) Employed and Underemployed. An underemployed person is one who is working at less than his highest skill or potential. The fact that new industry sometimes takes employees away from existing industry must be faced. This may be upsetting to existing employers, but it is not always bad because it gives the underemployed a chance for advancement. This benefits the individuals concerned as well as the community. Recent studies indicate that when a new plant locates in a community nearly 20% of the new plant's employees will come from the employed. (See Tables 17 and 18 for total males and females in the labor force and the number employed in the eight-state southeastern region.)

(2) Unemployed. This group is the most obvious, the most readily available, and the most easily identified group. However, it does not always
Table 17
POPULATION AND TOTAL MALES, 16 YEARS OLD AND OLDER, IN THE LABOR FORCE IN THE EIGHT SOUTHEASTERN STATES

<table>
<thead>
<tr>
<th>State</th>
<th>Population</th>
<th>Total Males 16 Years Old and Over</th>
<th>Number in Labor Force</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>3,444,148</td>
<td>1,102,679</td>
<td>808,412</td>
<td>73.3</td>
</tr>
<tr>
<td>Florida</td>
<td>6,789,383</td>
<td>2,315,645</td>
<td>1,609,360</td>
<td>69.5</td>
</tr>
<tr>
<td>Georgia</td>
<td>4,589,569</td>
<td>1,481,210</td>
<td>1,154,170</td>
<td>77.9</td>
</tr>
<tr>
<td>Kentucky</td>
<td>3,218,697</td>
<td>1,071,575</td>
<td>767,473</td>
<td>71.6</td>
</tr>
<tr>
<td>Mississippi</td>
<td>2,216,850</td>
<td>691,743</td>
<td>480,498</td>
<td>69.5</td>
</tr>
<tr>
<td>North Carolina</td>
<td>5,082,036</td>
<td>1,691,734</td>
<td>1,309,299</td>
<td>77.4</td>
</tr>
<tr>
<td>South Carolina</td>
<td>2,590,509</td>
<td>840,881</td>
<td>652,548</td>
<td>77.6</td>
</tr>
<tr>
<td>Tennessee</td>
<td>3,923,726</td>
<td>1,294,589</td>
<td>956,144</td>
<td>73.9</td>
</tr>
<tr>
<td>Southeast</td>
<td>31,854,918</td>
<td>10,490,056</td>
<td>7,737,904</td>
<td>73.8</td>
</tr>
<tr>
<td>United States</td>
<td>203,210,158</td>
<td>67,235,510</td>
<td>51,502,114</td>
<td>76.6</td>
</tr>
</tbody>
</table>


Table 18
POPULATION AND TOTAL FEMALES, 16 YEARS OLD AND OLDER, IN THE LABOR FORCE IN THE EIGHT SOUTHEASTERN STATES

<table>
<thead>
<tr>
<th>State</th>
<th>Population</th>
<th>Total Females 16 Years Old and Over</th>
<th>Number in Labor Force</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>3,444,148</td>
<td>1,244,501</td>
<td>474,073</td>
<td>38.1</td>
</tr>
<tr>
<td>Florida</td>
<td>6,789,383</td>
<td>2,591,592</td>
<td>1,012,194</td>
<td>39.1</td>
</tr>
<tr>
<td>Georgia</td>
<td>4,589,569</td>
<td>1,637,745</td>
<td>731,618</td>
<td>44.7</td>
</tr>
<tr>
<td>Kentucky</td>
<td>3,218,697</td>
<td>1,155,850</td>
<td>414,089</td>
<td>35.8</td>
</tr>
<tr>
<td>Mississippi</td>
<td>2,216,850</td>
<td>771,350</td>
<td>298,997</td>
<td>38.8</td>
</tr>
<tr>
<td>North Carolina</td>
<td>5,082,036</td>
<td>1,827,782</td>
<td>850,553</td>
<td>46.5</td>
</tr>
<tr>
<td>South Carolina</td>
<td>2,590,509</td>
<td>901,100</td>
<td>407,998</td>
<td>45.3</td>
</tr>
<tr>
<td>Tennessee</td>
<td>3,923,726</td>
<td>1,447,834</td>
<td>595,103</td>
<td>41.1</td>
</tr>
<tr>
<td>Southeast</td>
<td>31,854,918</td>
<td>11,577,754</td>
<td>4,784,625</td>
<td>41.3</td>
</tr>
<tr>
<td>United States</td>
<td>203,210,158</td>
<td>73,851,760</td>
<td>30,546,667</td>
<td>41.4</td>
</tr>
</tbody>
</table>

contain the best or the most highly skilled workers. Table 19 points out that three of the eight states -- Alabama, Kentucky, and North Carolina -- have unemployment rates higher than the nation's average.

(3) New Entrants to the Labor Force. School graduates and dropouts, housewives, marginal farm workers, and new residents enter the labor force as employment opportunities develop. This group is of concern to an employer, since he is interested in a continuing supply of workers, as well as those who are presently available.

Table 19
NUMBER AND PERCENT OF CIVILIAN LABOR FORCE UNEMPLOYED, BY MALE AND FEMALE, IN THE EIGHT SOUTHEASTERN STATES AND THE U. S.

<table>
<thead>
<tr>
<th>State</th>
<th>Civilian Labor Force Unemployed</th>
<th>Percent of Civilian Labor Force Unemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Alabama</td>
<td>27,886</td>
<td>27,994</td>
</tr>
<tr>
<td>Florida</td>
<td>47,766</td>
<td>47,211</td>
</tr>
<tr>
<td>Georgia</td>
<td>26,019</td>
<td>32,231</td>
</tr>
<tr>
<td>Kentucky</td>
<td>30,201</td>
<td>22,635</td>
</tr>
<tr>
<td>Mississippi</td>
<td>18,661</td>
<td>18,878</td>
</tr>
<tr>
<td>North Carolina</td>
<td>28,809</td>
<td>41,627</td>
</tr>
<tr>
<td>South Carolina</td>
<td>14,989</td>
<td>22,299</td>
</tr>
<tr>
<td>Tennessee</td>
<td>35,566</td>
<td>32,058</td>
</tr>
<tr>
<td>Southeast</td>
<td>229,897</td>
<td>244,933</td>
</tr>
<tr>
<td>United States</td>
<td>1,925,485</td>
<td>1,571,962</td>
</tr>
</tbody>
</table>


Comparison of the potential labor force with the actual one revealed that there is no substantial difference in the United States and the southeastern region labor force participation rates. Job availability, then, does not seem to be a problem in the region relative to the nation and the per capita income gap must be accounted for by other factors. Table 20 shows the average weekly earnings by major industry groups for the eight individual states, the
### Table 20

**AVERAGE WEEKLY EARNINGS BY MAJOR INDUSTRY GROUP FOR THE EIGHT SOUTHEASTERN STATES AND THE UNITED STATES, 1970**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Alabama</th>
<th>Florida</th>
<th>Georgia</th>
<th>Kentucky</th>
<th>Mississippi</th>
<th>North Carolina</th>
<th>South Carolina</th>
<th>Tennessee</th>
<th>Southeastern Region</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Services, Forestry, Fishing</td>
<td>$59.90</td>
<td>$83.11</td>
<td>$71.35</td>
<td>$81.91</td>
<td>$60.59</td>
<td>$72.21</td>
<td>$71.69</td>
<td>$60.03</td>
<td>$70.10</td>
<td>$86.68</td>
</tr>
<tr>
<td>Mining</td>
<td>147.33</td>
<td>145.52</td>
<td>133.87</td>
<td>147.11</td>
<td>135.65</td>
<td>125.28</td>
<td>110.57</td>
<td>125.14</td>
<td>133.81</td>
<td>164.28</td>
</tr>
<tr>
<td>Contract Construction</td>
<td>115.48</td>
<td>137.07</td>
<td>112.64</td>
<td>133.14</td>
<td>100.83</td>
<td>101.82</td>
<td>102.82</td>
<td>111.49</td>
<td>114.41</td>
<td>156.87</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>119.95</td>
<td>132.67</td>
<td>116.00</td>
<td>129.68</td>
<td>103.91</td>
<td>105.34</td>
<td>108.77</td>
<td>117.59</td>
<td>116.74</td>
<td>147.84</td>
</tr>
<tr>
<td>Transportation and Other Public Utilities</td>
<td>132.31</td>
<td>146.53</td>
<td>144.15</td>
<td>135.98</td>
<td>124.61</td>
<td>133.23</td>
<td>131.93</td>
<td>135.94</td>
<td>135.58</td>
<td>155.35</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>126.87</td>
<td>136.64</td>
<td>147.12</td>
<td>126.07</td>
<td>119.18</td>
<td>135.60</td>
<td>126.83</td>
<td>131.81</td>
<td>131.81</td>
<td>156.11</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>73.33</td>
<td>81.24</td>
<td>80.31</td>
<td>75.27</td>
<td>72.03</td>
<td>78.09</td>
<td>72.54</td>
<td>74.63</td>
<td>75.93</td>
<td>83.62</td>
</tr>
<tr>
<td>Finance, Insurance, and Real Estate</td>
<td>117.58</td>
<td>123.22</td>
<td>131.67</td>
<td>114.47</td>
<td>114.14</td>
<td>121.91</td>
<td>118.26</td>
<td>119.93</td>
<td>120.15</td>
<td>131.50</td>
</tr>
<tr>
<td>Services</td>
<td>81.63</td>
<td>93.66</td>
<td>86.04</td>
<td>80.70</td>
<td>70.89</td>
<td>82.05</td>
<td>75.06</td>
<td>89.67</td>
<td>82.46</td>
<td>99.88</td>
</tr>
<tr>
<td>Unclassified Establishments</td>
<td>70.91</td>
<td>85.78</td>
<td>76.01</td>
<td>74.91</td>
<td>63.57</td>
<td>69.76</td>
<td>83.79</td>
<td>83.44</td>
<td>76.01</td>
<td>93.03</td>
</tr>
<tr>
<td>Average Weekly Wage</td>
<td>106.19</td>
<td>111.64</td>
<td>109.81</td>
<td>110.19</td>
<td>95.22</td>
<td>101.57</td>
<td>100.51</td>
<td>107.38</td>
<td>105.31</td>
<td>126.65</td>
</tr>
</tbody>
</table>

southeastern region, and the nation. The average weekly wage in 1970 was $105.31 regionwide and the state averages ranged from $95.22 to $111.64. The difference in workers' earnings between the region and the nation is substantial, as can be seen from the fact that the highest average weekly wage among the states ($111.64 for Florida) was much lower than the national average wage of $126.65.

One possible reason for this wage differential is the difference in the educational levels of the southeastern and national labor forces. Table 21 shows the education level of persons 25 years old and older for the eight states and the nation. Florida is the only state which equaled the national figure of 12.1 school years completed, and Florida, as was pointed out previously, had the highest average weekly wage within the region. Therefore, part of the wage differential between the region and the nation probably can be explained by the difference in the average level of education of the labor forces. Whether or not this wage differential will continue to exist in the future will depend to a large extent on the educational attainment of the students now enrolled in school. Table 22 shows statistics on students who drop out between the fifth grade and high school graduation for the eight states, the southeastern region, and the nation. The ratio of dropouts to those who completed high school was 54.2% in the Southeast, compared with only 31.0% in the nation. This indicates that the difference in the educational levels of the region and the nation continues to be a major problem.

Another problem is that of the "hidden unemployed." The state departments of labor provide staff and facilities in almost all of the counties in the Southeast to assist every unemployed person in matters relating to job placement and unemployment insurance. The employment offices not only have information on people who have registered with them, but also have job offers from employers to whom the unemployed can be referred. However, this does not mean that all employers register their job openings with the local employment offices. Nor does it mean that all -- or even a majority -- of the unemployed are registered with the local employment offices. This fact is brought out in "The Georgia Cooperative Manpower Plan FY-1968."1/

---

1/ Georgia Manpower Coordinating Committee, Georgia Department of Labor, Atlanta, August 4, 1967, pp. 378-381.
Table 21
EDUCATION OF PERSONS 25 YEARS OLD
AND OLDER IN THE SOUTHEASTERN REGION

<table>
<thead>
<tr>
<th>State</th>
<th>Persons 25 Years Old and Over, Median School Years Completed</th>
<th>% Who Completed Four Years of High School or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>10.8</td>
<td>41.3</td>
</tr>
<tr>
<td>Florida</td>
<td>12.1</td>
<td>52.6</td>
</tr>
<tr>
<td>Georgia</td>
<td>10.8</td>
<td>40.6</td>
</tr>
<tr>
<td>Kentucky</td>
<td>9.9</td>
<td>38.5</td>
</tr>
<tr>
<td>Mississippi</td>
<td>10.7</td>
<td>41.0</td>
</tr>
<tr>
<td>North Carolina</td>
<td>10.6</td>
<td>38.5</td>
</tr>
<tr>
<td>South Carolina</td>
<td>10.5</td>
<td>37.8</td>
</tr>
<tr>
<td>Tennessee</td>
<td>10.6</td>
<td>41.8</td>
</tr>
<tr>
<td>United States</td>
<td>12.1</td>
<td>52.3</td>
</tr>
</tbody>
</table>


Table 22
TOTAL SCHOOL DROPOUTS IN THE EIGHT-STATE SOUTHEASTERN REGION

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>72,989</td>
<td>45,286</td>
<td>27,703</td>
</tr>
<tr>
<td>Florida</td>
<td>97,870</td>
<td>70,478</td>
<td>27,392</td>
</tr>
<tr>
<td>Georgia</td>
<td>89,278</td>
<td>56,859</td>
<td>32,419</td>
</tr>
<tr>
<td>Kentucky</td>
<td>58,277</td>
<td>37,473</td>
<td>20,804</td>
</tr>
<tr>
<td>Mississippi</td>
<td>52,495</td>
<td>29,653</td>
<td>22,842</td>
</tr>
<tr>
<td>North Carolina</td>
<td>103,022</td>
<td>68,886</td>
<td>34,136</td>
</tr>
<tr>
<td>South Carolina</td>
<td>56,697</td>
<td>34,940</td>
<td>21,757</td>
</tr>
<tr>
<td>Tennessee</td>
<td>75,262</td>
<td>49,000</td>
<td>26,262</td>
</tr>
<tr>
<td>Southeastern Region</td>
<td>605,890</td>
<td>392,575</td>
<td>213,315</td>
</tr>
<tr>
<td>United States</td>
<td>3,800,000</td>
<td>2,900,000</td>
<td>900,000</td>
</tr>
</tbody>
</table>

Source: U. S. Department of Health, Education and Welfare, Southeastern Regional Office, Atlanta, Georgia.
While the unemployment rate is quite low in this State, many of those who are now unemployed want and are seeking full-time employment. The majority of those not presently working are extremely "disadvantaged." Although the unemployment rate, when estimated by conventional methods, is low for the State of Georgia, this figure does not begin to show the loss and shameful waste of our potential manpower resources. Among this potential manpower reservoir are the unknowns to the world of work. They are not counted among the unemployed, nor are they considered as resources to eliminate the State's skill shortages.

These human resources that are even now escaping from the statistician's unemployment rate are by far the greatest challenge to our efforts in the eradication of poverty and development of manpower. Many of the excluded persons from the statistics are living in deprivation without hope or aspirations. They have been identified through Human Resources Surveys, the Office of Economic Opportunity's Community Action Agencies and other groups. It is most ironic, however, that no real consideration has been given to including these people in the unemployment figures for the State.

Before the problems of unemployment can be overcome, all of those who are seeking employment -- including the "human resources that are even now escaping from the statistician's unemployment rate" -- must be identified, their characteristics must be determined, and their needs and qualifications must be matched with appropriate training and employment opportunities.

The problems of the regional human resources developer are endless and to make the situation more complex and frustrating, it has been found in recent studies that employers in some communities within the Southeast are now requesting chambers of commerce to curtail their industrial development efforts simply because the labor situation is too tight, while at the same time the area, region, or national unemployment rate remains at 5% or above. In addition, many employers have recently indicated that those persons available for work do not have the education, skill, training, and attitudes toward responsibility that are necessary and, therefore, their dependability, stability, and productivity are at a very low ebb.

Goals

As was stated earlier, the ultimate goal of any economic development program should be to upgrade the human resources of the region, to educate, to train, and to provide job opportunities that will raise the standards of living of the citizens of the region, thereby allowing them to enjoy the benefits of economic growth.
More specifically, the goals of the region should include the following:

1. To improve the information system used in each state for determining supply and demand for occupational training.
2. To identify problems which obstruct human resources development.
3. To promote regional human resources conferences and seminars for those responsible for human resources development and economic development.
4. To eliminate functional illiteracy among the region's adult population.
5. To improve school dropout prevention programs.
6. To provide better education and job training for current and future secondary students.
7. To improve and upgrade the current work force's education and job skills.
8. To increase the male and female work force participation rate.
9. To provide the opportunity for full employment to all citizens throughout the region.
10. To increase annual production per employee throughout the region.
11. To increase every worker's annual income as production increases.
12. To provide better health care for all the citizens of the region.

**Programs**

The southeastern region has made much progress in education, training, and job development in recent years, and the situation which exists with regard to average levels of education and training is undeniably much improved over former years. The advent of statewide systems of vocational-technical training schools and junior and community colleges also has resulted in great advances in training and education.

However, if the above goals are to be attained and if the southeastern region is to grow economically and obtain a greater proportion of high-technology industry in the future, additional education and job training efforts for its citizens must be made. The needs of such industries for higher levels of trained and educated people is well recognized. The proper proportions of such skilled persons do not presently exist in the regional labor force except in specific and isolated locations.

Furthermore, specific and complete human resources data are needed to satisfy most existing employers and industrial prospects, and to advance the overall regional development effort. However, the process of accumulating and
evaluating specific regional human resources data for economic development programs requires a great deal of work because measurements are not always precise. Since human resources information is presented in such a vague and general manner in many communities, areas, and states, if the southeastern regional economic developers can surmount these difficulties and present detailed and objective human resource data to those who need and can use it, then they will have a decided advantage over competing regions for industrial and economic development.

To these ends, the following specific program possibilities should be considered:

(1) Introduce occupational orientation and training in all high schools in the region. The level of this training need not be intense, and the vocational-technical training schools still would be needed for the more sophisticated training programs.

(2) Provide programs of reading, writing, and arithmetic in greater numbers for that proportion of the adult population which is basically uneducated. The individuals with this training would not fit into the high-technology picture, but they could replace other individuals who might, by superior education and training, move up to higher-paying jobs.

(3) Inventory and analyze -- on the state, county, and community levels -- the present and future manpower needs of industry and the potential manpower resources to meet these needs. These surveys currently are being done on a scattered basis in some areas, but plans should be made to conduct them on a methodical, comprehensive basis all over the region. This could be done in conjunction with (7) below.

(4) Develop and expand cooperative educational programs at the high school and university levels. This combination of education and employment provides the participant with a real insight into the importance of productive work and puts the participant at ease when he begins working full time in the industrial environment after his schooling is completed.

1/ Ross W. Hammond, Economic Development Trends in the 16-State South, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, March 1972, pp. 27, 28.
(5) Expand preemployment courses for the unemployed. These courses would be aimed at providing the previously unemployed with some understanding of industrial operations, what is expected from employees of such concerns, how to conduct themselves in job interviews, etc. Such courses have been pioneered in the region in recent years.

(6) Establish state experimental education centers. A willingness to innovate in education and training might be fostered by establishing a center expressly for the purpose of demonstrating new techniques or equipment or developing new curricula which relate to preparing people for the new industries and jobs of the future.

(7) Establish an Occupational Training Information System in each of the eight states. This system is a new and innovative approach to the responsive development of human resources in step with shifting labor market conditions and puts funding where the needs are. During fiscal year 1971-1972, it is estimated that the eight states spent $189,284,991 to train 708,651 workers for business and industry. Of the eight southeastern states, Kentucky, Tennessee, and South Carolina are the only ones that have attempted to establish or have implemented an occupational training information system, although Alabama has plans for one.1/

(8) Promote and conduct regional human resources conferences and seminars. Conferences and seminars should be held for those who are responsible for educating, training, and employing human resources throughout the area.

---

INDUSTRIAL DEVELOPMENT

Background

For over 100 years the Southeast has lagged behind the rest of the nation in standard measurements of industrial growth such as employment, payrolls, and production values. This condition is attributable to two basic factors: the terrible destruction resulting from the Civil War and subsequent destitution of the populace, and the emphasis which has been placed by southern political leaders upon the agrarian way of life, a condition that predominated until the 1940's.

With the onset of World War II, factories sprang up in hitherto rural areas of the Southeast. Until that period, the Southeast's industrial complex was characterized by the dominance of the textile industry in the Piedmont section of the Carolinas and Georgia (based in part on the significant cotton production in the area), the steel industry in central Alabama, and certain economic developments that were coastal- or port-oriented. Other segments of the pre-World War II economy featured a heavy dependence on food, tobacco, and lumber processing and extensive production units in the apparel and shoe sectors. Nearly all of these activities emphasized first-stage processing of raw materials.

Impressive gains have been made by the region since 1946 in terms of employment and production, yet the southeastern region still lags the nation in per capita income, in share of manufacturing employment, in value added by the manufacturing process, and in share of higher-paying industrial activities.

The 1950-1959 decade witnessed the transition of the Southeast from an agricultural economy to one in which manufacturing became dominant. As manufacturing is presently the largest single employer, its labor rates and output values have considerable influence on the Southeast's total per capita income.

The eight-state area's share of national manufacturing employment has risen from 11% in 1940 to almost 16% in 1970, while its share of total nonfarm employment has increased from almost 11% in 1940 to over 14% in 1970. By contrast, the region's share of population was 16% in 1940 and 15.7% in 1970. Thus, while its share of population decreased slightly, its role in national industrial growth, as measured by employment, rose significantly.
Regionally, production outputs as expressed in terms of value added by manufacture (see Table 23) constitute a true measure of the industrial complex. In the Southeast, value added reflects a substantial increase over the past 40 years, rising from 7% of the national total in 1929 to over 13% in 1970. Obviously, the types of industrial activity which have thrived in the Southeast are more and more producing higher-value products and presumably requiring a more highly skilled labor force. North Carolina led the other seven states throughout the period in value added by manufacture, followed by Tennessee and Georgia.

Table 23
VALUE ADDED BY MANUFACTURE, EIGHT SOUTHEASTERN STATES AND UNITED STATES, 1929-1970
(in millions of current dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>258</td>
<td>246</td>
<td>877</td>
<td>1,771</td>
<td>3,526</td>
<td>4,340</td>
</tr>
<tr>
<td>Florida</td>
<td>135</td>
<td>116</td>
<td>350</td>
<td>1,411</td>
<td>3,683</td>
<td>4,560</td>
</tr>
<tr>
<td>Georgia</td>
<td>295</td>
<td>280</td>
<td>1,016</td>
<td>2,102</td>
<td>4,684</td>
<td>5,483</td>
</tr>
<tr>
<td>Kentucky</td>
<td>236</td>
<td>187</td>
<td>743</td>
<td>1,769</td>
<td>3,636</td>
<td>4,492</td>
</tr>
<tr>
<td>Mississippi</td>
<td>107</td>
<td>73</td>
<td>302</td>
<td>642</td>
<td>1,635</td>
<td>2,103</td>
</tr>
<tr>
<td>North Carolina</td>
<td>693</td>
<td>544</td>
<td>1,646</td>
<td>3,078</td>
<td>6,607</td>
<td>9,053</td>
</tr>
<tr>
<td>South Carolina</td>
<td>159</td>
<td>169</td>
<td>794</td>
<td>1,360</td>
<td>3,030</td>
<td>3,768</td>
</tr>
<tr>
<td>Tennessee</td>
<td>323</td>
<td>318</td>
<td>961</td>
<td>2,207</td>
<td>4,921</td>
<td>6,297</td>
</tr>
<tr>
<td>Eight-State Total</td>
<td>2,206</td>
<td>1,933</td>
<td>6,689</td>
<td>14,340</td>
<td>31,722</td>
<td>40,096</td>
</tr>
<tr>
<td>United States</td>
<td>30,591</td>
<td>24,487</td>
<td>74,290</td>
<td>141,541</td>
<td>261,984</td>
<td>300,228</td>
</tr>
<tr>
<td>Eight States as % of U. S.</td>
<td>7.2</td>
<td>7.9</td>
<td>9.0</td>
<td>10.0</td>
<td>12.1</td>
<td>13.4</td>
</tr>
</tbody>
</table>


Manufacturing employment, another of the key indicators in measuring the region's growth in industrial activity, showed a 190% increase in the eight-state area between 1929 and 1970. (See Table 24.) Likewise, the region's share of the national total of manufacturing employment increased 50%, representing slightly over 10% in 1929 and over 15% in 1970. Throughout the
Table 24
MANUFACTURING EMPLOYMENT, EIGHT SOUTHEASTERN STATES AND UNITED STATES, 1929-1970
(in thousands of persons)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>130</td>
<td>129</td>
<td>206</td>
<td>230</td>
<td>289</td>
<td>305</td>
</tr>
<tr>
<td>Florida</td>
<td>71</td>
<td>63</td>
<td>79</td>
<td>171</td>
<td>285</td>
<td>310</td>
</tr>
<tr>
<td>Georgia</td>
<td>172</td>
<td>177</td>
<td>250</td>
<td>314</td>
<td>423</td>
<td>442</td>
</tr>
<tr>
<td>Kentucky</td>
<td>89</td>
<td>77</td>
<td>130</td>
<td>162</td>
<td>225</td>
<td>245</td>
</tr>
<tr>
<td>Mississippi</td>
<td>56</td>
<td>52</td>
<td>77</td>
<td>108</td>
<td>160</td>
<td>179</td>
</tr>
<tr>
<td>North Carolina</td>
<td>226</td>
<td>293</td>
<td>381</td>
<td>462</td>
<td>643</td>
<td>700</td>
</tr>
<tr>
<td>South Carolina</td>
<td>114</td>
<td>136</td>
<td>189</td>
<td>226</td>
<td>304</td>
<td>324</td>
</tr>
<tr>
<td>Tennessee</td>
<td>142</td>
<td>152</td>
<td>222</td>
<td>279</td>
<td>418</td>
<td>448</td>
</tr>
<tr>
<td>Eight-State Total</td>
<td>1,000</td>
<td>1,079</td>
<td>1,534</td>
<td>1,952</td>
<td>2,747</td>
<td>2,953</td>
</tr>
<tr>
<td>United States</td>
<td>9,660</td>
<td>9,527</td>
<td>14,294</td>
<td>16,025</td>
<td>19,323</td>
<td>19,217</td>
</tr>
<tr>
<td>Eight States as % of U. S.</td>
<td>10.4</td>
<td>11.3</td>
<td>10.7</td>
<td>12.2</td>
<td>14.2</td>
<td>15.4</td>
</tr>
</tbody>
</table>


1929-1970 period, North Carolina was the consistent leader in manufacturing employment. Of the other seven states, only Georgia, Tennessee, and South Carolina showed growth in every decade.

Wages of production workers in the region have paralleled the trends identified in value added by manufacture. From almost 7% of the national total in 1929, over a 40-year period production wages have advanced to the point where they constitute more than 13% of total wages paid production workers nationally. (See Table 25.)

The fact that neither wages of production workers nor value added by manufacture increased relative to the national total as much as did manufacturing employment highlights one of the basic deficiencies in the region's industrial mix. Manufacturing employment in the region is heavily dominated by low-paying, low-value-added industrial groups such as textiles, apparel, food processing, and lumber.
Table 25
WAGES OF PRODUCTION WORKERS, EIGHT SOUTHEASTERN STATES AND UNITED STATES, 1929-1970
(in millions of current dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>102</td>
<td>91</td>
<td>373</td>
<td>677</td>
<td>1,163</td>
<td>1,419</td>
</tr>
<tr>
<td>Florida</td>
<td>55</td>
<td>37</td>
<td>128</td>
<td>435</td>
<td>990</td>
<td>1,212</td>
</tr>
<tr>
<td>Georgia</td>
<td>110</td>
<td>106</td>
<td>400</td>
<td>776</td>
<td>1,522</td>
<td>1,812</td>
</tr>
<tr>
<td>Kentucky</td>
<td>87</td>
<td>62</td>
<td>236</td>
<td>492</td>
<td>927</td>
<td>1,178</td>
</tr>
<tr>
<td>Mississippi</td>
<td>42</td>
<td>27</td>
<td>116</td>
<td>281</td>
<td>561</td>
<td>718</td>
</tr>
<tr>
<td>North Carolina</td>
<td>161</td>
<td>199</td>
<td>642</td>
<td>1,110</td>
<td>2,210</td>
<td>2,790</td>
</tr>
<tr>
<td>South Carolina</td>
<td>73</td>
<td>86</td>
<td>331</td>
<td>565</td>
<td>1,107</td>
<td>1,367</td>
</tr>
<tr>
<td>Tennessee</td>
<td>116</td>
<td>109</td>
<td>372</td>
<td>740</td>
<td>1,512</td>
<td>1,886</td>
</tr>
<tr>
<td>Eight-State Total</td>
<td>746</td>
<td>717</td>
<td>2,598</td>
<td>5,076</td>
<td>9,992</td>
<td>12,382</td>
</tr>
<tr>
<td>United States</td>
<td>10,885</td>
<td>8,998</td>
<td>30,244</td>
<td>49,605</td>
<td>81,394</td>
<td>91,609</td>
</tr>
</tbody>
</table>

Eight States as % of U. S.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.9</td>
<td>8.0</td>
<td>8.6</td>
<td>10.2</td>
<td>12.3</td>
<td>13.5</td>
</tr>
</tbody>
</table>


Textiles constitutes the major manufacturing industry in three of the eight southeastern states. Apparel is the largest manufacturing industrial group in two states and ranks as the second most important in five others. The food industry ranks as the second largest in one state and third largest in four others. These industrial groups, basically labor-intensive and therefore low-wage, have been responsible for much of the region's industrial employment increase. It is, however, in the high-wage, high-production-value industries that the major economic benefits to the region are yet to be realized.

An examination of Table 26, "Expenditures for New Plant and Equipment," reveals that the eight southeastern states accounted for less than 10% of the national total of new plant and equipment expenditures in 1947. By 1967, this region accounted for nearly 15% of the total, a percentage it maintained in 1970. This evidence supports the conclusion that the region's investment in plant and equipment has been heavily oriented toward the less capital-intensive sort of operations. Throughout the period, North Carolina led the other seven
Table 26
EXPENDITURES FOR NEW PLANT AND EQUIPMENT, EIGHT SOUTHEASTERN STATES AND UNITED STATES, 1947-1970
(in millions of current dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>72</td>
<td>165</td>
<td>379</td>
<td>417</td>
</tr>
<tr>
<td>Florida</td>
<td>50</td>
<td>152</td>
<td>301</td>
<td>378</td>
</tr>
<tr>
<td>Georgia</td>
<td>84</td>
<td>170</td>
<td>423</td>
<td>453</td>
</tr>
<tr>
<td>Kentucky</td>
<td>77</td>
<td>113</td>
<td>338</td>
<td>309</td>
</tr>
<tr>
<td>Mississippi</td>
<td>23</td>
<td>68</td>
<td>276</td>
<td>275</td>
</tr>
<tr>
<td>North Carolina</td>
<td>138</td>
<td>191</td>
<td>665</td>
<td>714</td>
</tr>
<tr>
<td>South Carolina</td>
<td>62</td>
<td>76</td>
<td>417</td>
<td>370</td>
</tr>
<tr>
<td>Tennessee</td>
<td>84</td>
<td>210</td>
<td>412</td>
<td>508</td>
</tr>
<tr>
<td>Eight-State Total</td>
<td>590</td>
<td>1,145</td>
<td>3,211</td>
<td>3,424</td>
</tr>
<tr>
<td>United States</td>
<td>5,998</td>
<td>9,544</td>
<td>21,503</td>
<td>22,164</td>
</tr>
</tbody>
</table>

Eight States as % of U. S.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>9.8</td>
<td>12.0</td>
<td>14.9</td>
<td>15.4</td>
</tr>
</tbody>
</table>


states by a sizable margin. The second-place position alternated between Georgia and Tennessee in that period. Mississippi occupied last place throughout the 1947-1970 period.

In number of manufacturing establishments, the Southeast also was less than fully represented in the national total. However, since 1939 a slow but perceptible increase to nearly the national average is apparent. (See Table 27.) This trend would indicate that perhaps the Southeast is approaching the national norm in having somewhat larger plant operations that would, hopefully, increase production outputs.

Goals

Accepted national goals emphasize the optimization of economic growth through full employment and achievement of stability in the price/wage relationships, as well as measures to increase the rural share of total economic activity without depressing the urban areas, all of this to be accomplished without
### Table 27
NUMBER OF MANUFACTURING ESTABLISHMENTS, EIGHT SOUTHEASTERN STATES
AND UNITED STATES, 1929-1967

<table>
<thead>
<tr>
<th></th>
<th>1929</th>
<th>1939</th>
<th>1947</th>
<th>1958</th>
<th>1967</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>2,848</td>
<td>1,982</td>
<td>3,336</td>
<td>3,956</td>
<td>4,951</td>
</tr>
<tr>
<td>Florida</td>
<td>2,212</td>
<td>1,976</td>
<td>2,807</td>
<td>6,349</td>
<td>7,950</td>
</tr>
<tr>
<td>Georgia</td>
<td>4,179</td>
<td>3,055</td>
<td>4,755</td>
<td>5,860</td>
<td>6,976</td>
</tr>
<tr>
<td>Kentucky</td>
<td>2,246</td>
<td>1,582</td>
<td>2,245</td>
<td>2,903</td>
<td>2,994</td>
</tr>
<tr>
<td>Mississippi</td>
<td>1,911</td>
<td>1,235</td>
<td>1,985</td>
<td>2,433</td>
<td>2,761</td>
</tr>
<tr>
<td>North Carolina</td>
<td>3,797</td>
<td>3,158</td>
<td>5,321</td>
<td>7,352</td>
<td>8,266</td>
</tr>
<tr>
<td>South Carolina</td>
<td>1,659</td>
<td>1,300</td>
<td>2,135</td>
<td>2,911</td>
<td>3,465</td>
</tr>
<tr>
<td>Tennessee</td>
<td>2,855</td>
<td>2,225</td>
<td>3,345</td>
<td>4,508</td>
<td>5,040</td>
</tr>
<tr>
<td>Eight-State Total</td>
<td>21,707</td>
<td>16,513</td>
<td>25,929</td>
<td>36,272</td>
<td>42,403</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1929</th>
<th>1939</th>
<th>1947</th>
<th>1958</th>
<th>1967</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>206,663</td>
<td>173,802</td>
<td>240,807</td>
<td>303,303</td>
<td>311,140</td>
</tr>
</tbody>
</table>

Eight States as %
of U. S. | 10.5  | 9.5   | 10.8  | 12.0  | 13.6  |


additional damage to the total environment. Certain regional goals for industrial development can be established in consonance with the national commitment:

1. To provide suitable job opportunities for all citizens of the region who are willing and able to work.
2. To attract and expand high-wage and high-technology industries which will offer the opportunity for upgrading the skills and income of the region's workers.
3. To disperse industrial plant facilities more widely so as to provide a broader economic base within the rural areas, concurrently providing more job opportunities.
4. To encourage and develop plants and processes which are new and innovative and which can produce new products.
5. To further develop markets outside the region for some of the traditional products.
6. To develop new production facilities through greater emphasis on discovering and encouraging the latent entrepreneurial talents which exist in the region.
To further enhance the region's environmental assets through enforceable standards to protect its water, air, and land resources.

Programs

Most of the goals listed above will have to be achieved through a combination of public and private sector policies and programs. Some of the public policies will be set nationally; others can be reached regionally, either with assistance and direction from regional development groups or by the several states acting in concert. Such policies relate to determination of priorities for public investment, directed to strengthening the infrastructure of states and communities, and the judicious application of tax incentives and/or subsidies. Furthermore, public assistance has been extended, particularly in the field of economic development, by various devices such as assisting in the financing of new plants and expansions to existing operations.

The following programs and activities are suggested:

(1) Inventory and identify the numerous local and regional development agencies presently operating in the eight states. In order to determine the relative responsibility and involvement of development agencies in the region, this should be the first order of business. Many well-meaning programs flounder simply because of poor and defective information regarding the number, the responsibilities, and the capabilities of the local groups which constitute the developmental structure. Their resources, in terms of money and local support, should be measured. An in-depth analysis, state by state, of the current situation and of the steps needed to complete the network is recommended.

(2) Identify and examine the high-wage, high-technology industries adaptable to the region. The region must attract the high-wage, high-technology industries which it obviously needs to balance the present industrial mix. Accomplishing this task would upgrade the economic benefits resulting from employment of high-level technicians. Intensive examination of the industry categories which would fit into the region must be undertaken. In-depth feasibility analyses of the most promising should be conducted in order to ascertain their operational requirements and to identify the resources which will be required locally -- on a community by community basis -- to attract such industries into the area.
(3) Upgrade the education and skills of the region's labor force. Concurrent with these efforts to attract high-technology plants, specific efforts will be required to upgrade the region's labor force to qualify its inhabitants for the desired employment. This can be done partly through educational improvement and partly through retraining programs to produce skilled workers, technicians, and managers. Better and more efficient use of vocational-technical training systems can be studied in order to offset the present shortage of both craftsmen and professional personnel.

(4) Encourage formation and expansion of support services for these sophisticated industries. To support a series of high-wage, high-technology industries, a network of various business services is required. Such support needs cover a wide range, such as computer services, office supplies, machine and repair services, and tool and die shops. These businesses must be encouraged and supported as the new industrial operations are introduced into the region.

(5) Encourage initiation of comprehensive community development programs aimed at expanding the cultural amenities and broadening the features of community livability. Efforts must be concentrated on making the individual communities more attractive and desirable to the outside management which must be satisfied with living conditions in order to provide adequate direction and supervision for the new plants which will be established. Such efforts should range from physical improvements to addition of new residential areas, improvement of recreation and educational facilities, and other aspects of community living.

(6) Devise more systematic procedures for identifying potential industrial land and for developing desirable industrial sites. The potential industrial properties that appear to qualify for future industrial use should be protected by proper zoning. In order to enhance the environmental quality, both industry and the individual communities should be mutually protected through enforceable standards regulating land use, effluent discharge, atmospheric pollution, and the like. These steps will make the region better able to compete for new industrial plants.

(7) Develop programs to encourage and foster entrepreneurial talents. The identification of new opportunities and products and the training of managerial and risk-taking groups are important aspects of building a broader-based industrial complex.
(8) Foster the development of local leadership. Basic to the region's hoped for industrial advancement is the development of adequate local leadership which can make the individual communities in the eight-state area more responsive to the needs of their citizens and more attuned to current trends. Strengthening the caliber of local leadership through various applications of technical assistance and information sharing will enhance the economic growth of the communities. In sum, the composite improvement of local leadership will make a positive contribution to the advancement of the states and of the entire region.
The undeveloped and unexploited marine resources of the southeastern coastal waters represent a vast reservoir of regional economic potential. Many billions of dollars worth of valuable commodities are virtually "available for the taking" from the Gulf of Mexico and Atlantic Ocean. The taking process, however, may at times prove difficult.

Background

Of the eight states which comprise the southeastern study area of this report, six are coastal in nature, with a combined general shoreline of 2,035 statute miles. This ocean and gulf shoreline, equal in length to 35.4% of the contiguous U. S. coastline, can be used extensively for recreational purposes and gives ready access to the continental shelves and the raw material wealth that lies within. These marine riches and sociological benefits can be divided for analysis into living resources, nonliving resources, and recreation.

Living Resources. Fish and other seafood provide the U. S. population with sustenance and a more varied diet and act as the basis for profitable industrial activity. The living resources of the sea are frequently marketable with little expensive processing and marketing equipment, and local fishing industries, for the most part, can be developed at low cost.

For more than two decades, landings of fish and shellfish in U. S. waters have remained relatively constant, vacillating between 5.35 billion pounds (1962) and 4.06 billion pounds (1967). Presently, the bulk of fish and other seafood used for domestic consumption is acquired as imports. In 1969, imports of 7.5 billion pounds accounted for 63% of the 11.8 billion pounds of fishery products available in the U. S. Of the 4.34 billion pounds of fishery products commercially landed by U. S. vessels in 1969, 772 million pounds, or 17.8%, were taken in southeastern waters. In terms of the amount paid to southeastern fishermen, these products were valued at $88 million.

During the past 30 years, the United States has dropped from second place to sixth place among the world's fishing nations. Besides landing only about one-third of the total national demand, U. S. vessels harvest less than 10% of the production potential available over the U. S. continental shelves. Unfortunately, of the known marine species of potential economic value prevalent off
U. S. coasts, only a few are being commercially exploited, and the rich latent living resources in nearby international waters are increasingly being harvested by vessels of foreign origin. By and large, the U. S. fishing fleet is technically outmoded and incapable of attracting the stable and efficient labor supply required to maintain a leadership position relative to the world's major fishing powers.

Numerous interrelated factors affect the competitive position of U. S. fisheries. These factors include:

1. Restrictive and conflicting laws and regulations.
2. Lack of demarcation between state and federal responsibility.
3. Research and development stifled by state jurisdictional conflicts.
4. Lack of coordination and integration of commercial fishing catch-to-consumption procedure.

National and regional fishing industries alike have been stagnating, and only the restoration of competitive and profitable domestic fisheries on a national level can help the Southeast realize a greater portion of its marine resource potential.

Nonliving Resources. In 1970, petroleum products supplied 43% of the total energy consumed in the United States, averaging approximately 14.7 million barrels daily. Since domestic capacity has declined to a point where the country is no longer self-sufficient in oil, 23% of this total was imported under oil import controls. The National Petroleum Council estimates that 436 billion barrels of potential oil resources remain to be discovered in the U. S. A substantial portion of these resources lies in promising undrilled areas in the relatively shallow waters of the Outer Continental Shelves (OCS), which approximate 1.2 million square miles, more than one-third of our present land area.

The growth of the U. S. offshore oil industry has been impressive. In 1953, OCS crude oil output was 1.2 million barrels, or 0.5% of the national total. By 1971, these figures had increased to 418.6 million barrels and 12.0%.

The Gulf of Mexico is one of the most prolific oil-producing areas in the world. Development of this area was started in the 1930's when the first offshore wells were drilled in Louisiana waters. Crude oil production from the shelves in the Gulf through 1966 equaled 2.1 billion barrels, leaving a proven reserve of about 3.9 billion barrels. Oil production in 1971 from OCS lease
areas in the Gulf accounted for 387 million barrels with a market value of more than $1.4 billion.

Several thousand offshore platforms have been built in the Gulf of Mexico, and new developments are in the planning stage for the waters off the Atlantic seaboard. Structures suitable for 600-foot depths are being designed and fuel pipelines have been laid more than 70 miles offshore.

Although none of this production is from shelves off the southeastern coast, a significant portion of the 4.6 million acres considered as part of a 1971 tentative five-year lease-sale schedule are off Alabama, Mississippi, and Florida coastal waters. In addition, the schedule proposes holding public hearings on possible leasing in the Atlantic Ocean, prior to 1976. Offshore seismic studies and drillings have revealed thick sedimentary sections and several major structures that are favorable for the occurrence of petroleum in several large areas along southern Florida and the Atlantic coastal plain.

Natural gas, averaging an annual growth rate of 6% during the past 20 years, presently supplies one-third of the total U. S. energy requirement. In 1970, gas demand was 22 trillion cubic feet and reserves in the order of 265 trillion cubic feet were estimated for the contiguous U. S. Unfortunately, the national reserve-to-production (R/P) ratio of natural gas has been declining steadily, falling from a reserve adequate to cover 27 years in 1950 to slightly less than 12 years in 1970. Between 1971 and 1980 cumulative gas demand is expected to amount to 275 trillion cubic feet, or 27.5 trillion cubic feet a year. With annual additions to proven gas reserves averaging only 15.2 trillion cubic feet in the past five years, new or alternate sources of natural gas must be found. Petroleum geologists believe there are large natural gas resources remaining to be discovered and developed in the OCS, particularly in the Gulf of Mexico.

As with crude oil, the recent growth of OCS gas production has been spectacular, increasing from 19 billion cubic feet in 1953 to 2.8 trillion cubic feet in 1971. As a percentage of total U. S. output, the OCS volumes ranged from 0.24% in 1953 to 12.18% in 1971.

The potential mineral resources of the continental shelves include a wide variety of minerals. Besides oil and gas, minerals such as sulfur, oyster shells, sand, gravel, and salt are presently being mined offshore in U. S.
waters. The only one of these items mined from southeastern coastal waters is oyster shells, which were valued at $6.1 million in 1971.

The OCS are sufficiently large and similar to the mineral-rich continental lands of the U. S. in their geology to lead to the belief that they also have great potential mineral wealth, even though it is not now possible to locate, quantify, and extract these minerals. It would appear, therefore, that all but a small fraction of shelf lands have no present mineral value whatsoever, for with current expertise and technology they cannot be mined economically. The shelves, however, do contain enormous quantities of minerals which could, at some future date, make a valuable contribution to the economy -- if an investment is made in acquiring the knowledge necessary to find and extract them efficiently.

Recreation. Outdoor recreation has become a massive rush to the water. This popularity of coastal areas is understandable, considering the numerous pleasures such as surf-riding, swimming, boating, water skiing, fishing, and beachcombing derived from activity on or near the shoreline.

There are two important necessities for high-value shoreline recreation areas:

(1) Accessibility. Preplanned outdoor recreational activity falls into specific time-length groupings; day outings, overnight or weekend trips, and vacations. Of these, facilities for day outings, within a two-hour drive of home (about 40 to 90 miles), are most in demand. For this reason, the heaviest pressures are on beaches in proximity to large metropolitan areas.

(2) Availability. Available shorelines are those whose use is not restricted by type of ownership, zoning or other controls, or high fees.

Only limited ocean frontage, however, is available for public use. For too long, the shoreline as a natural recreation resource has been neglected and indiscriminately used. As a result, today it is estimated that only 1,200 miles (5.5%) of the 21,700 miles of U. S. shoreline (lake and ocean) are available for public recreation facilities. More than 91% of this desirable recreation resource is in private control and the remainder, about 3%, is in restricted military areas.

Even though much of the Southeast enjoys a semi-tropical climate and proximity to ocean and gulf, the major portion of the region's shoreline is
unavailable for recreational activity. Of the 1,866 miles of southeastern beach property (42.9% of the U. S. total), only 317 miles are in unrestricted public areas. Beach shoreline, one of the cheapest and most enjoyable types of outdoor recreation facilities for large numbers of people, unhappily is also in great demand for commercial, industrial, transportation, and military purposes.

Goals

The marine resources of the southeastern U. S., numbering in the billions of dollars, could, if properly channelled and utilized, elevate substantially the economic and socioeconomic structures of the region. This could well be accomplished through the satisfaction of the following specific goals:

(1) Rehabilitation of domestic commercial fisheries.

(2) Identification, location, and quantification of mineral marine resources in U. S. waters.

(3) Optimal development of these marine resources by private investment enterprise.

(4) Extensive utilization of land-sea facilities for recreation, transportation, and national security.

(5) Elimination or minimization of end-use conflicts through optimal resource management.

Programs

These goals could best be achieved by implementation of recommendations and procedures such as the following:

(1) Establish policies and priorities for migratory marine species.

(2) Empower a specific agency to develop programs, arbitrate differences and disagreements between states, and instruct in matters pertaining to living marine resources.

(3) Remove present legal restrictions governing vessel origin, fishing areas, and fishing techniques.

(4) Strengthen activities relevant to aquiculture.

(5) Perform geological surveys and analyses of U. S. continental shelves.

(6) Encourage research relating to marine mineral exploration and recovery.

(7) Reevaluate offshore leasing and regulatory policies and price structures.
(8) Encourage and support exploitation of marine mineral resources by private enterprise.

(9) Provide for public recreation and public access to water in urban areas where large-scale industrial projects, new beach shoreline, or transportation facilities are planned.

(10) Increase recreational shoreline and water frontage near urban areas by developing artificial islands and embayments.

To formulate and carry out the comprehensive program needed for full utilization of the southeastern marine resources, close communication and cooperation between state, federal, and private interests would appear mandatory.
TOURISM

Tourism has achieved attention by developers as an income generator and source of employment only within the last two decades. Prior to that time, those interested in furthering the economic fortunes of their area, or region, concerned themselves primarily with attracting new industry or with expanding the operations of existing industrial employers.

Tourism is generally looked upon as traveling for recreation by the "customer" or tourist. However, tourism is viewed by those hoping to increase its economic importance to their area as the "promotion or encouragement of touring." To put it more directly, tourism is aimed at getting people (consumers) to come into an area (the market) and spend money (consume) for a given length of time; supposedly, the longer the time period, the greater the expenditure. Such expenditure and its concomitant consumption of goods and services (demand) creates jobs (supply) to meet the traveler's needs. The resources used in concert to serve the tourist are collectively referred to as the "tourist industry."

Background

Tourism Benefits. The tourist industry generally is not an industry in and of itself, but instead is composed of economic activity in several industries. In this sense, tourism acts as a catalyst to activate various areas of the economy, such as construction (building motels, service stations, restaurants, highways, airports, etc.); services (common carriers, hotel and motel employees, auto repair services, etc.); and retail trade (employees in eating and drinking places, souvenir stands, etc.). This is the direct impact from tourist dollars.

An additional or secondary impact from tourism is brought about by expenditures on the part of employers and employees directly affected by tourist spending. These individuals and companies buy goods and services from other local suppliers with the income derived from tourist spending, thus creating a second round of expenditure (called a multiplier effect) which, in turn, creates further spending and employment. A recent study estimated the multiplier effect of tourism in Georgia at 1 1/2 to 2, meaning that each $1.00 spent in the state
by a tourist generated $1.50 to $2.00 worth of business before it finally passed out of the economy.1/

Another aspect of tourism is the generation of income to the state or area directly through tax revenue. As each transaction takes place, generally some form of tax is levied, resulting in income to the state and its subdivisions. As the volume of tourist and transactions increases, so does the tax income. Thus, expenditures made by nonresidents yield outside income to help alleviate the tax burden. One southern state estimated its 1970 tax "take" from tourism at 4.5% of total revenue, representing over $41 million.1/ In the same period, wages paid by selected travel-serving businesses to over 98,000 employees exceeded $367 million for an average per capita annual wage of about $3,711. A study of 11 southern states indicated the tax income area-wide from tourism to be 25% of all state taxes, representing over $2.3 billion, while personal income paid to 1.2 million employees by the travel business exceeded $6.2 billion.2/

Tourism, as an industry, encompasses all the "lures" an area may possess to attract people into its various subareas for, hopefully, a protracted length of time to spend money. Such expenditures create employment and produce incomes. To the extent incomes are above the prevailing average for the area, the income gap is narrowed and the area's economic situation improved.

Additionally, tourism may produce an intangible economic benefit for an area, one not readily measurable, for it may attract investors who might not otherwise come, see, and invest. As greater numbers of people are given an opportunity to see an area's assets, the probability of exposing potential investors to area investment opportunities also increases.

Regional Problems. Although the study area contains much of the "raw material" necessary to sustain a viable tourist industry, to a large extent these assets have not been exploited except in the case of one state, Florida,


2/ Lewis and Leona Copeland, Tourists and the Southern Travel Business During 1971: An Economic Analysis, prepared for the Southern Travel Directors Council, by the College of Business Administration, The University of Tennessee, Knoxville, February 1972.
which has often set the pace nationally in demonstrating how to develop a tourism industry. The region contains a varied topography offering the tourist both mountain and seashore recreation opportunities. It has a generally mild climate, and in winter can offer snow skiing in its more northern areas as well as sun bathing on warm beaches in its southern extremity. Hunting and fishing opportunities abound throughout the eight-state area, as do historic sites covering America's colonial period and two great wars.

All states in the area have developed tourism programs in recent years. To some extent, they are now bearing fruit, but the programs generally need more time, funding, coordination and, perhaps, focus to produce the desired results. Existing programs are aimed at promoting individual states, but there is little or no coordinated areawide promotional effort or combined lobbying at the federal level for those infrastructure elements extending beyond state boundaries which are necessary to support tourism and other economic development.

Such coordination should be carried out by a group representative of the tourism interests in each state, including persons in both the governmental and private sectors. The group would collaborate on developing transportation and other facilities of common interest to all the states and would work toward fostering a favorable areawide image as a place to visit and vacation.

The area's infrastructure in many places fails to meet quality standards necessary to provide for, or support, a viable tourist industry. Access to various parts of the region often is below par. Needed highways are incomplete or perhaps not yet beyond the early planning stage. The interstate highway system is a good example of a necessary but still unfinished infrastructure component having considerable tourism and other economic impact. Airport facilities and commercial air and other carrier schedules need improving, as do eating and motel accommodations. In some cases towns themselves will require considerable "sprucing-up" to become appealing to tourists.

Another problem involves basic market research and promotion. In the past, tourism resource inventories and development programs to capitalize on any resources discovered generally have been lacking among the states. There also appears to be a need for factual data on recreation-tourism investment opportunities as well as for a systematic method of getting this information into the hands of potential investors. The states also may need to provide investment incentives to expedite the flow of capital into the tourism areas.
Little research appears to have been done, even on a national level, on tourist demand for particular recreation opportunities and on the tourist's general attitudes toward such support services as dining and lodging facilities. In the eight-state area, current data are insufficient to accurately assess tourism's economic impact over the area. Tourism researchers need to evaluate existing research methodology and, where necessary, develop a more uniform reporting system within the eight-state area.

Along with market research and promotion goes the need to jointly develop an area "image" creation program, national in scope, promoting it as a place to visit and vacation. The bad reputations of certain communities and areas of the region as "speed traps" and "tourist traps" need to be overcome.

Finally, the employment generated by tourism is generally in the service industries, with some additional employment in the eating and drinking sector of retail trade. These employment areas are relatively low-paying, as may be seen from a review of Table 28. Travel-related average weekly earnings range between $46.60 and $91.66, compared with the southeastern regional average weekly earnings in all industries of $105.31, which is lower than the national average. Data presented in a recent study of the southern tourism and travel business\(^1\) indicate that in an 11-state area, over 41% of employment in major travel-related businesses was in eating and drinking places. Auto repair and service employment, the highest-paying service employment sector appearing in Table 28, accounted for only 7%.

The generation of additional employment through the development of tourism does not appear to be a very fruitful means of closing the regional income gap, when judged from an average weekly earnings standpoint. Since wages are low relative to other sectors, closing the income gap appreciably would require many units of employment, or jobs. This would indicate that resource allocation emphasis over the study area should be put on other employment generators which produce higher wages per job. However, this is not to say the area should ignore development of its tourism potential totally, for if developed within perspective, it can provide useful supplementary employment for area workers. Service-oriented employment frequently is a haven for the young of high school and college age needing seasonal work, experience, and income. Tourism-related jobs can meet this type of employment need for the area; and

\(^{1/}\) Copeland, op. cit.
Table 28
AVERAGE WEEKLY EARNINGS BY SELECTED INDUSTRY GROUPS FOR THE EIGHT SOUTHEASTERN STATES, 1970

<table>
<thead>
<tr>
<th>Industry</th>
<th>Alabama</th>
<th>Florida</th>
<th>Georgia</th>
<th>Kentucky</th>
<th>Mississippi</th>
<th>North Carolina</th>
<th>South Carolina</th>
<th>Tennessee</th>
<th>Southeastern Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Trade</td>
<td>$73.33</td>
<td>$81.24</td>
<td>$80.31</td>
<td>$75.27</td>
<td>$72.03</td>
<td>$78.09</td>
<td>$72.54</td>
<td>$74.63</td>
<td>$75.93</td>
</tr>
<tr>
<td>Eating &amp; Drinking Places</td>
<td>43.78</td>
<td>52.00</td>
<td>52.10</td>
<td>46.68</td>
<td>40.65</td>
<td>48.66</td>
<td>42.20</td>
<td>46.75</td>
<td>46.60</td>
</tr>
<tr>
<td>Services</td>
<td>81.63</td>
<td>93.66</td>
<td>86.04</td>
<td>80.70</td>
<td>70.89</td>
<td>82.05</td>
<td>75.06</td>
<td>89.67</td>
<td>82.46</td>
</tr>
<tr>
<td>Hotels &amp; Other Lodging Places</td>
<td>56.55</td>
<td>67.47</td>
<td>63.13</td>
<td>52.13</td>
<td>54.42</td>
<td>56.82</td>
<td>48.79</td>
<td>56.34</td>
<td>56.96</td>
</tr>
<tr>
<td>Personal Services</td>
<td>62.54</td>
<td>77.16</td>
<td>70.21</td>
<td>71.48</td>
<td>60.85</td>
<td>69.43</td>
<td>62.14</td>
<td>67.23</td>
<td>67.63</td>
</tr>
<tr>
<td>Auto Repair Services &amp; Garages</td>
<td>90.12</td>
<td>102.69</td>
<td>97.36</td>
<td>86.79</td>
<td>80.67</td>
<td>91.80</td>
<td>82.98</td>
<td>100.83</td>
<td>91.66</td>
</tr>
<tr>
<td>Amusement &amp; Recreation Services</td>
<td>59.42</td>
<td>84.92</td>
<td>74.80</td>
<td>63.27</td>
<td>59.69</td>
<td>66.94</td>
<td>65.31</td>
<td>69.54</td>
<td>67.99</td>
</tr>
<tr>
<td>Museums, Botanical &amp; Zoological Gardens</td>
<td>-</td>
<td>82.39</td>
<td>47.79</td>
<td>-</td>
<td>-</td>
<td>73.67</td>
<td>-</td>
<td>63.16</td>
<td>66.75</td>
</tr>
<tr>
<td>All Industries</td>
<td>106.19</td>
<td>111.64</td>
<td>109.81</td>
<td>110.19</td>
<td>95.22</td>
<td>101.57</td>
<td>100.51</td>
<td>107.38</td>
<td>105.31</td>
</tr>
</tbody>
</table>

with the possible exception of auto repair, they can also provide work for those in the labor force having marginal employment capabilities.

**Goal**

The goal of a regional tourism development program should be to more fully utilize those area resources related to the tourist industry through more efficient exploitation of tourism as a catalyst to expand existing market opportunities.

**Programs**

The success of a tourism program within an area depends upon the concomitant development and improvement of various resources. Areas of concern must include the upgrading of human resources; improved highways and airports; better airline schedules; adequate travel accommodations and service facilities; development and protection of public areas along the ocean and lakes and in the mountains; the stocking of fishing and hunting areas; environmental protection; improvements in community appearance; preservation of historic sites -- to mention only a few.

Through expansion of the tourist industry, the study area may experience increased employment opportunities, higher per capita incomes, and a standard of living more closely on a par with the national average. To these ends, the following program proposals are made. Some of them will require concerted action among the eight states, while others will necessitate individual state implementation.

1. Organize an areawide group representing its tourist interests and functioning to promote on a coordinated basis the improvement of the infrastructure and other elements common to all states and necessary to the successful implementation of a tourism program.

2. Reassess tourism program results in the light of objectives to determine where improvements are needed. Individual states, through the proposed eight-state area group, should determine which improvements might best be undertaken jointly.

3. Create a uniform tourism data collection and analysis system.

4. Inventory areawide infrastructure deficiencies and develop a program to get deficiencies removed. Simultaneously, individual state programs should
be undertaken to remove those deficiencies which, by their nature, will have to be solved at the state level.

5. Encourage individual states to undertake programs analyzing the physical appearance strengths and deficiencies of their cities and towns with respect to realizing their tourism potential. The program also should include a community improvement program and state-sponsored professional assistance to guide communities in executing their plans. States might also consider some type of financial aid to further help communities to get the job done.

6. Analyze existing state resource development programs in terms of their impact on tourism in order to determine how the various programs might be improved, or reoriented, to better serve tourism program objectives, while at the same time not impairing other major objectives of the particular resource development program itself.

7. Encourage the several states to undertake, individually or collectively, programs to motivate city and county governments to judiciously prosecute local businesses which may be out to rob the tourist. Where local governments fail to do the job, states should see to it that the law is quickly and fairly enforced to discourage other businesses from pursuing unfair practices. Individual state governments may even want to establish an underwriting program where the state personally guarantees that any price unfairly charged for services will be reimbursed to the tourist directly by the state. Such a guarantee could become a part of that state's nationwide tourist advertising campaign.

8. Initiate a coordinated tourism research and promotion effort. The several states should make a combined effort to develop and implement an in-depth and ongoing tourism market research and promotion program. Research activities should include resource inventories in the areas of historic, sports activity, and other attractions; factual data on recreation-tourism investment opportunities; and assessment of the tourist's demand for particular recreation opportunities and his general attitudes toward the local attractions and supporting facilities offered. Such a program should definitely include in its implementation phase active, if not aggressive, promotion within financial circles of those tourism investment opportunities having an above average potential for success.

9. Analyze the impact on tourism of environmental protection programs. Where laws do not already require it, existing and future environmental
protection programs should contain specific references to the impact on tourism and how any adverse impact may be corrected. Such statements also should include a timetable for carrying out corrective efforts.
Background

An essential requirement for economic development is an effective transportation system. A transportation system is necessary to transport goods and passengers between and within centers of production and consumption. Rationally designed transportation systems and public transportation investment policies can be utilized to control patterns of development in order to achieve better distributions of population, industry, and income.

Freight and passenger statistics reveal the enormous growth of the transport function in recent years. In 1950 there were 1,094,160 million ton miles of intercity freight traffic compared to 1,329,995 in 1960 and 1,921,000 in 1970. The intercity passenger traffic pattern is equally significant, with the level of 508,472 million passenger miles in 1950 increasing to 783,626 in 1960 and 1,185,000 in 1970. This represents a 75.57% increase in freight traffic and a 133.05% increase in passenger traffic over the past two decades. Table 29 presents details of these statistics by mode.

As can be seen by the prior statistics, the various modes play a vital role in each of the transport areas. The ultimate role they play is determined by their characteristics, namely, speed, volume of shipment, and flexibility of shipment origin and destination. Table 30 displays these characteristics by mode.

As this comparison shows, no one mode can provide a high level of all transport characteristics. In fact, frequently, to obtain a high level of characteristics necessary in many transport situations, it becomes necessary to look toward intermodal shipping.

Regional statistics available on rail and highway transport indicate that 15% to 20% of the domestic freight and passenger transport volume in the U. S. occurs in the eight-state southeastern region.\(^1\) Transportation, therefore, is not only a vital part of the economic development of the region, but is a significant contributor to the economic sector. Transport activity is a large

---

Table 29
VOLUME OF DOMESTIC INTERCITY FREIGHT AND PASSENGER TRAFFIC, BY TYPE OF TRANSPORT, 1950-1970

Freight
(in millions of ton miles)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>318</td>
<td>0.03</td>
<td>778</td>
<td>0.06</td>
<td>3,400</td>
<td>0.18</td>
</tr>
<tr>
<td>Highway</td>
<td>172,860</td>
<td>15.80</td>
<td>285,483</td>
<td>21.46</td>
<td>412,000</td>
<td>21.44</td>
</tr>
<tr>
<td>Pipeline</td>
<td>129,175</td>
<td>11.81</td>
<td>228,626</td>
<td>17.19</td>
<td>431,000</td>
<td>22.43</td>
</tr>
<tr>
<td>Rail</td>
<td>628,463</td>
<td>57.44</td>
<td>594,855</td>
<td>44.73</td>
<td>768,000</td>
<td>39.97</td>
</tr>
<tr>
<td>Water</td>
<td>163,344</td>
<td>14.93</td>
<td>220,253</td>
<td>16.56</td>
<td>307,000</td>
<td>15.98</td>
</tr>
<tr>
<td>Total</td>
<td>1,094,160</td>
<td>100.01</td>
<td>1,329,995</td>
<td>100.00</td>
<td>1,921,400</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Passenger
(in millions of passenger miles)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>10,072</td>
<td>1.98</td>
<td>33,958</td>
<td>4.33</td>
<td>119,000</td>
<td>10.01</td>
</tr>
<tr>
<td>Automobile</td>
<td>438,293</td>
<td>86.20</td>
<td>706,079</td>
<td>90.10</td>
<td>1,026,000</td>
<td>86.60</td>
</tr>
<tr>
<td>Bus</td>
<td>26,436</td>
<td>5.20</td>
<td>19,327</td>
<td>2.47</td>
<td>25,000</td>
<td>2.14</td>
</tr>
<tr>
<td>Rail</td>
<td>32,481</td>
<td>6.39</td>
<td>21,574</td>
<td>2.75</td>
<td>11,000</td>
<td>0.92</td>
</tr>
<tr>
<td>Water</td>
<td>1,190</td>
<td>0.23</td>
<td>2,688</td>
<td>0.34</td>
<td>4,000</td>
<td>0.34</td>
</tr>
<tr>
<td>Total</td>
<td>508,472</td>
<td>100.00</td>
<td>783,626</td>
<td>99.99</td>
<td>1,185,000</td>
<td>100.00</td>
</tr>
</tbody>
</table>


Table 30
TRANSPORT CHARACTERISTICS OF VARIOUS TRANSPORTATION MODES

<table>
<thead>
<tr>
<th>Mode</th>
<th>Speed</th>
<th>Volume</th>
<th>Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>high</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>Highway</td>
<td>medium</td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td>Rail</td>
<td>medium</td>
<td>high</td>
<td>medium</td>
</tr>
<tr>
<td>Water</td>
<td>low</td>
<td>high</td>
<td>low</td>
</tr>
</tbody>
</table>
source of employment for the region, as well as being a consumer of goods and services.

Historically, there has been little or no state and regional planning for transportation other than the construction and maintenance of highways. As evidenced by the preceding statistics, the substantial growth of transport activity plus transportation's role in the well-being of the region point to the need for planning of a strong, effective, and economical regional transport system. The implementation of programs designed to produce a strong intermodal transportation system within the region will provide a double impact to the regional economy.

The basis for regional planning and programs must be dedicated, as in the past, to the provision of adequate transport facilities. However, past efforts must be expanded to include all modes and to promote intermodal facilities and capabilities.

Goals

In order to achieve sound regional transportation activity, planning must be directed toward objectives designed to be compatible with interregional goals. The following statements reflect goals toward which planning efforts should be directed throughout the region:

(1) Create an intermodal transportation system, including terminals to adequately connect all major cities and centers of activity throughout the region, which would provide for efficient, economical, and convenient intermodal transfer of people and goods.

(2) Provide for location of facilities to insure intermodal compatibility and minimize the use of land, transport times, and the negative effects on the environment.

(3) Provide for facilities to insure a strong multi-modal transportation system for both people and goods.

(4) Provide a transportation system that will attain a high level of safety, environmental protection, and aesthetic preservation.

(5) Improve existing rail, highway, air, and water routes and facilities to achieve a basic system in a relatively short interval.

(6) Achieve a sound transportation system, while retaining a large involvement of private funding.
Programs

In order to properly achieve the aforementioned goals, it is necessary to implement programs designed to produce not just a collection of individual projects, but a regionally unified thrust toward completion. The programs basically can be broken down into two categories, multi-modal and intermodal. The first category relates primarily to routes, rights-of-way, and the like; the second relates primarily to terminals. In addition, some general programs are suggested. They are as follows:

Multi-Modal Programs

(1) Establish a regional highway commission to review the existing highway system, particularly interstate, and assist in expediting completion of presently planned highways. Recommend additional highway patterns that will be required to provide an effective highway network through and between major centers of population and production. Review environmental impacts of highway system and recommend ways to minimize these impacts.

(2) Establish a regional rail commission to review the present rail network and identify those lines that are necessary to provide an adequate rail network. This would mean recommending new rail lines that are necessary for a good system.

(3) On those rail lines identified, establish a program of maintenance to upgrade the lines to a high level of speed and comfort characteristics. This program could include public subsidy of lines or the outright purchase of lines and leasing to any rail customers for their use.

(4) Establish a regional air commission to review existing route patterns and recommend for C.A.B. approval additional routes to reinforce air traffic.

(5) Review regional and commuter air services and recommend additional routes and services to strengthen intraregional traffic.

(6) Establish a water transport commission to review existing port facilities and determine what major port facilities should be expanded and strengthened.

(7) Review inland waterways to determine where additional dredging, canals, or locks and dams should be constructed to improve the water system.
Intermodal Programs

(1) Establish a regional transportation commission to determine locations for major intermodal terminal facilities.

(2) Review existing terminal facilities to determine where and how other modes could be incorporated into the terminal areas.

(3) Finance intermodal terminal facilities to insure that all beneficial modes are incorporated into each area. Land acquisition for facilities should be planned to minimize negative effects to the environment and population.

(4) Develop an intermodal complex so that all shippers have access to and use of such facilities with a minimum of transport inefficiencies.

General Programs

(1) Broaden scope of all Department of Transportation agencies in the region to effectively encompass all forms of transport.

(2) Review rate structures to insure that traffic through and within the region are competitive compared with other regions.

Due to increased federal involvements in total transport planning, all programs must be conducted in close cooperation with the U. S. Department of Transportation to provide for policies and activities consistent with the national transport system. The more efficient and effective a system that can be developed for the region, the greater the growth that will be experienced in the transport sector and the more desirable will become development patterns in the entire region.
INTERNATIONAL TRADE AND INVESTMENT

Background

Despite the fact that individual states are prevented by law from controlling foreign trade, state and local governments as well as regional organizations have always been vitally interested in promoting foreign trade activities in their areas.

The direct impact of increased exports upon regional development can hardly be overemphasized. In 1960, the U. S. Department of Labor estimated that 3.1 million workers were required, directly or indirectly, to produce, transport, and market the $20.7 billion\(^1\) of merchandise exported by the nation that year.

The export of an automobile, for example, requires employment not only in the automobile industry, but also in transporting it to the port of export, handling the transaction through an exporting firm or an export sales branch of the manufacturer, loading it on an ocean freighter, shipping to a foreign country, and insuring the cargo. All of this constitutes employment directly attributable to exports.

Additionally, a substantial amount of employment is created in supporting industries which produce, transport, and market the raw materials and components, such as steel, tires, glass, and upholstery cloth, which go into the making of an automobile. Also to be taken into account is employment resulting from production of the proportionate share of plant and equipment used up or depreciated in the course of producing the automobile and component parts. These activities create the indirect employment attributable to exports.

Similar income-generating results are derived from exports of other industries, such as food and textiles, as is shown in Table 31. Of the individual manufacturing industry groups, five stand out as making heavy contributions to export employment: chemicals, primary metals, nonelectrical machinery, electrical machinery, and transportation equipment. Not coincidentally, these industries are the largest industrial exporters in the Southeast and offer the greatest potential for export expansion. For these reasons among many others, efforts to increase exports should form part of any program to promote economic growth.

\(^1\) In 1972 U. S. exports were $49.2 billion.
<table>
<thead>
<tr>
<th>Industry Group</th>
<th>Employment Attributable to Exports</th>
<th>Total Employment in the Private Economy</th>
<th>Percent of Employment Attributable to Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment 1/</td>
<td>3,081.7</td>
<td>52,865.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Farm</td>
<td>941.4</td>
<td>7,145.0</td>
<td>13.2</td>
</tr>
<tr>
<td>Nonfarm</td>
<td>2,140.3</td>
<td>45,720.0</td>
<td>4.7</td>
</tr>
<tr>
<td>Mining</td>
<td>89.9</td>
<td>709.0</td>
<td>12.7</td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; Kindred Products</td>
<td>1,287.6</td>
<td>16,654.7</td>
<td>7.7</td>
</tr>
<tr>
<td>Tobacco Manufactures</td>
<td>57.3</td>
<td>1,778.6</td>
<td>3.2</td>
</tr>
<tr>
<td>Textile Mill Products</td>
<td>11.7</td>
<td>91.8</td>
<td>12.3</td>
</tr>
<tr>
<td>Apparel &amp; Other Finished Products</td>
<td>47.3</td>
<td>944.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Lumber &amp; Wood Products, Except Furniture</td>
<td>23.5</td>
<td>1,246.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>38.0</td>
<td>624.7</td>
<td>6.1</td>
</tr>
<tr>
<td>Paper &amp; Allied Products</td>
<td>5.1</td>
<td>370.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Printing, Publishing &amp; Allied Industries</td>
<td>39.8</td>
<td>597.1</td>
<td>6.7</td>
</tr>
<tr>
<td>Chemicals &amp; Allied Products</td>
<td>30.9</td>
<td>894.7</td>
<td>3.3</td>
</tr>
<tr>
<td>Petroleum Refining &amp; Related Industries</td>
<td>115.7</td>
<td>804.7</td>
<td>14.4</td>
</tr>
<tr>
<td>Rubber &amp; Miscellaneous Plastics Products</td>
<td>16.7</td>
<td>237.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Leather &amp; Leather Products</td>
<td>28.2</td>
<td>387.0</td>
<td>7.3</td>
</tr>
<tr>
<td>Stone, Clay &amp; Glass Products</td>
<td>8.9</td>
<td>373.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Primary Metal Industries</td>
<td>29.5</td>
<td>619.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Fabricated Metal Products</td>
<td>171.0</td>
<td>1,187.4</td>
<td>14.4</td>
</tr>
<tr>
<td>Machinery, Except Electrical</td>
<td>72.3</td>
<td>1,120.2</td>
<td>6.4</td>
</tr>
<tr>
<td>Electrical Machinery, Equipment &amp; Supplies</td>
<td>224.0</td>
<td>1,448.4</td>
<td>13.5</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>92.4</td>
<td>1,326.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Professional, Scientific &amp; Controlling Instruments</td>
<td>131.9</td>
<td>1,687.5</td>
<td>7.8</td>
</tr>
<tr>
<td>Miscellaneous Manufacturing &amp; Ordnance</td>
<td>33.4</td>
<td>327.3</td>
<td>10.2</td>
</tr>
<tr>
<td>Military (Indirect) 3/</td>
<td>42.9</td>
<td>594.8</td>
<td>7.2</td>
</tr>
<tr>
<td>Trade 4/</td>
<td>67.2</td>
<td>N. A.</td>
<td>N. A.</td>
</tr>
<tr>
<td>Transportation, Including Ocean (U. S. Ships)</td>
<td>198.6</td>
<td>5,786.0</td>
<td>2.0</td>
</tr>
<tr>
<td>All Other 5/</td>
<td>213.5</td>
<td>2,565.0</td>
<td>8.3</td>
</tr>
<tr>
<td>Employment Attributable to Replacement of Plant &amp; Equipment Consumed 6/</td>
<td>140.9</td>
<td>16,005.0</td>
<td>.9</td>
</tr>
<tr>
<td></td>
<td>210.0</td>
<td>N. A.</td>
<td>N. A.</td>
</tr>
</tbody>
</table>

1/ Covers all nonfarm wage and salary employment (excluding government) and total employment on farms, including farm operators, family workers, and employees. May exceed actual number of persons employed because of dual jobholding.

2/ Includes both direct and indirect employment.

3/ The total military direct employment of 65,900 workers is included in transportation equipment (39,600) and in ordnance and miscellaneous manufacturing (26,300).

4/ Excluding eating and drinking establishments.

5/ Covers utilities, communications, all business services, forestry, fisheries, agricultural services, and contract construction.

6/ Employment required to replace plant and equipment used up in the course of producing, transporting, and marketing the goods exported was estimated as an overall total and therefore could not be distributed to individual industry groups.

N. A. = Not available.

Note: Because of rounding, individual values may not add to total.

Port Facilities. One point of concern of state and local officials is the flow of international trade through ports located in their specific area. Some of the most obvious benefits of such trade lie in the handling and distribution activities to which it gives rise. Once started, the process of concentration becomes cumulative. The more traffic through the port, the stronger the tendency for distribution activities to locate there; and the larger a distribution center it becomes, the more it attracts foreign trade. Furthermore, a port frequently attracts manufacturing plants because goods must be unloaded there and, rather than reload them and move them further inland, it is usually more profitable to manufacture or process them at that point. 1/ As is well known, for example, New York owes its dominant financial and commercial position, to a large extent, to its early prominence as the leading port through which trade flowed between Europe and the United States.

Ports, therefore, are extremely important in the promotion of foreign trade. The types of facilities existing in each port, however, will determine the volume and type of goods that can be handled through them. In the Southeast, Tampa, for instance, is highly specialized in the export of phosphate rock, which is used in the manufacture of fertilizer. Consequently, it is primarily a bulk commodity, rather than a general cargo, port. Mobile's exports are mainly soybeans, wheat flour, corn, and animal feed.

The South Atlantic ports -- Savannah, Brunswick, Jacksonville, Palm Beach, Port Everglades, and Miami -- are mainly raw materials ports. They export wood products, such as naval stores, and closely related paper products made from wood. Wood pulp and paperboard are quite important exports for Jacksonville and Savannah.

Considerable changes have occurred in the last few years at most of these ports in both the quantity and types of goods handled. One significant development has been the tremendous growth in the exports of wheat, corn, and soybeans through ports west of Pensacola. The Port of Savannah has built new facilities for bulk handling, containerization, and the LASH ships. This expansion should result in a significant increase in international trade in the immediate area.

Southeastern Export Patterns. Not surprisingly, the basic characteristics of the region's economy have strongly influenced the nature of its foreign trade; the regional economic structure has left a strong imprint upon the character of its international exports, which differs substantially from national trade patterns.

The contrasts between regional and national commodity patterns, therefore, are the result of widely known differences in basic economic structures and endowments of economic resources. The southeastern region has relatively more abundant natural resources and labor, while capital is scarcer than in the nation. Thus, the Southeast enjoys a comparative advantage in producing many raw materials, especially those of agricultural origin. Industries processing these raw materials, as well as those using relatively more labor than capital (labor-intensive industries), are consequently more important in the region than in the entire nation. On the other hand, most industrial goods in the producer and durable categories, which require larger amounts of capital and generally are more technologically sophisticated, account for a considerably smaller portion of the output, and consequently exports, in the Southeast than in the nation.1/

Tables 32 and 33 give the estimated values of national and southeastern exports of agricultural and manufactured products in 1960 and 1969. These tables show that during the decade of the sixties, agricultural exports in the United States increased by more than 113%, while regional exports jumped by only 37%. On the other hand, southeastern exports of manufactured goods increased more than 100% (from $1.56 billion to $3.14 billion), a percentage increase larger than that of the nation as a whole. This pattern of regional exports obviously suggests that the region has achieved a significant degree of industrialization in the last 10 years, a trend that, in all probability, will continue through the seventies.

The importance of agricultural exports, additionally, is frequently difficult to determine and the degree of control of these exports at the local, state, or regional level is somewhat questionable. Large amounts of agricultural products are sold through traders and brokers, many of them in the

Table 32

ESTIMATED U. S. AND SOUTHEASTERN EXPORTS OF AGRICULTURAL COMMODITIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>62.5</td>
<td>59.7</td>
<td>- 4.5</td>
</tr>
<tr>
<td>Florida</td>
<td>91.1</td>
<td>125.6</td>
<td>+ 37.9</td>
</tr>
<tr>
<td>Georgia</td>
<td>92.0</td>
<td>105.7</td>
<td>+ 16.0</td>
</tr>
<tr>
<td>Kentucky</td>
<td>45.6</td>
<td>92.4</td>
<td>+102.6</td>
</tr>
<tr>
<td>Mississippi</td>
<td>134.5</td>
<td>157.4</td>
<td>+ 17.2</td>
</tr>
<tr>
<td>North Carolina</td>
<td>251.7</td>
<td>406.4</td>
<td>+ 61.5</td>
</tr>
<tr>
<td>South Carolina</td>
<td>81.4</td>
<td>117.8</td>
<td>+ 44.7</td>
</tr>
<tr>
<td>Tennessee</td>
<td>93.9</td>
<td>104.0</td>
<td>+ 10.8</td>
</tr>
<tr>
<td>Southeast</td>
<td>852.7</td>
<td>1,169.0</td>
<td>+ 37.1</td>
</tr>
<tr>
<td>Remaining States</td>
<td>3,664.1</td>
<td>7,812.3</td>
<td>+113.2</td>
</tr>
<tr>
<td>United States</td>
<td>4,516.8</td>
<td>8,981.3</td>
<td>+ 98.8</td>
</tr>
</tbody>
</table>

Note: State shares of U. S. exports of agricultural commodities in fiscal year are estimated mainly on basis of the state's contribution to the nation's output as shown by production and sales data. Export shares are valued at port of exportation. They consist largely of unprocessed agricultural products. Some processed and semi-processed items of far origin are also included.


Midwest, where exports originate. For instance, many of the exports of corn seed, unmilled wheat, and soybeans moving through the port of New Orleans are exported by brokers and the products come from all over the country, mostly outside the Southeast.

Demand and prices for these products in the domestic and export markets frequently are determined by complex international conditions and controls. The individual farmer, therefore, usually does not concern himself with the final destination of his product, in many cases having sold his crop prior to even planting by virtue of forward contracting to brokers in the Midwest and other sections of the country. In other words, to a large extent, the specific markets of southeastern farmers are basically domestic, even though their
Table 33
ESTIMATED U. S. AND SOUTHEASTERN EXPORTS OF MANUFACTURED PRODUCTS

<table>
<thead>
<tr>
<th></th>
<th>Estimated Exports (in millions of dollars)</th>
<th>Percent Change</th>
<th>Percentage of U. S. Exports, 1969</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1960</td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>111.7</td>
<td>317.8</td>
<td>+184.5</td>
</tr>
<tr>
<td>Florida</td>
<td>179.7</td>
<td>425.4</td>
<td>+136.8</td>
</tr>
<tr>
<td>Georgia</td>
<td>225.3</td>
<td>427.9</td>
<td>+ 89.9</td>
</tr>
<tr>
<td>Kentucky</td>
<td>179.9</td>
<td>345.5</td>
<td>+ 92.0</td>
</tr>
<tr>
<td>Mississippi</td>
<td>87.6</td>
<td>180.8</td>
<td>+106.0</td>
</tr>
<tr>
<td>North Carolina</td>
<td>407.8</td>
<td>739.0</td>
<td>+ 81.2</td>
</tr>
<tr>
<td>South Carolina</td>
<td>113.3</td>
<td>235.5</td>
<td>+107.9</td>
</tr>
<tr>
<td>Tennessee</td>
<td>251.5</td>
<td>471.5</td>
<td>+ 87.5</td>
</tr>
<tr>
<td>Southeast</td>
<td>1,556.8</td>
<td>3,143.5</td>
<td>+101.9</td>
</tr>
<tr>
<td>Remaining States</td>
<td>12,988.9</td>
<td>26,066.6</td>
<td>+100.6</td>
</tr>
<tr>
<td>United States</td>
<td>14,545.7</td>
<td>29,210.1</td>
<td>+100.8</td>
</tr>
</tbody>
</table>


Products ultimately may be exported; thus, an increase in regional income from agricultural products basically would be determined by increases in production and improved marketing techniques.

A different case, however, is that of the industrial sector. Individual industrial firms are faced with the alternative of exporting as a very real and feasible possibility and base their final decision on projected profit potentials.

Table 34 shows a listing of southeastern industrial exports by industry group with their 1960 and 1969 dollar volumes. The strong predominance of intermediate commodities, as mentioned earlier, reflects the abundance in the region of the natural resources from which these products are made. For instance, output of wood and paper products draws upon southern forests, and paper products are especially important exports in Georgia and Florida.

Consumer products exports from the Southeast are mainly dominated by food and textile products, both derived from important agricultural raw materials. The failure of consumer goods as a whole to expand their share of regional
### Table 34
ESTIMATED EXPORTS OF MANUFACTURED PRODUCTS FROM THE SOUTHEAST

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>Estimated Exports (in millions of dollars)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel &amp; Related Products</td>
<td>26.1</td>
<td>+ 210</td>
</tr>
<tr>
<td>Chemicals &amp; Allied Products</td>
<td>283.1</td>
<td>+ 93</td>
</tr>
<tr>
<td>Electrical Machinery</td>
<td>3.8</td>
<td>+3,647</td>
</tr>
<tr>
<td>Fabricated Metal Products</td>
<td>28.0</td>
<td>+ 241</td>
</tr>
<tr>
<td>Food &amp; Kindred Products</td>
<td>155.1</td>
<td>+ 62</td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>6.7</td>
<td>+ 138</td>
</tr>
<tr>
<td>Instruments &amp; Related Products</td>
<td>7.2</td>
<td>+ 337</td>
</tr>
<tr>
<td>Leather &amp; Leather Products</td>
<td>3.0</td>
<td>+ 266</td>
</tr>
<tr>
<td>Lumber &amp; Wood Products</td>
<td>32.1</td>
<td>+ 304</td>
</tr>
<tr>
<td>Miscellaneous Manufacturing &amp; Ordnance</td>
<td>46.3</td>
<td>+ 122</td>
</tr>
<tr>
<td>Nonelectrical Machinery</td>
<td>78.9</td>
<td>+ 302</td>
</tr>
<tr>
<td>Paper &amp; Allied Products</td>
<td>151.8</td>
<td>+ 102</td>
</tr>
<tr>
<td>Petroleum &amp; Coal Products</td>
<td>N. A.</td>
<td>N. A.</td>
</tr>
<tr>
<td>Primary Metal Products</td>
<td>26.8</td>
<td>+ 370</td>
</tr>
<tr>
<td>Printing &amp; Publishing</td>
<td>1.5</td>
<td>+1,000</td>
</tr>
<tr>
<td>Rubber &amp; Plastics Products, N.E.C.</td>
<td>5.4</td>
<td>+ 738</td>
</tr>
<tr>
<td>Stone, Clay &amp; Glass Products</td>
<td>6.3</td>
<td>+ 746</td>
</tr>
<tr>
<td>Textile Mill Products</td>
<td>190.9</td>
<td>+ 42</td>
</tr>
<tr>
<td>Tobacco Products</td>
<td>259.5</td>
<td>+ 67</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>27.6</td>
<td>+ 837</td>
</tr>
<tr>
<td>Undistributed by Industry Groups</td>
<td>218.3</td>
<td>-</td>
</tr>
</tbody>
</table>

N. A. = No comparable data available.

Note: Export values are f.o.b. producing plant.

exports may stem, at least in part, from changes in the patterns of production that normally accompany industrialization. Traditionally, nations on the path of industrialization first expand consumer goods industries before establishing other types of manufacturers. In addition, these countries tend to achieve a greater degree of self-sufficiency in the production of consumer goods. Thus, industrialization programs in many less developed countries that are major purchasers of the Southeast's consumer goods may have restricted the overall growth of these exports.

Table 34 also shows that exports of fabricated products have made headway in southeastern exports in recent years. Georgia's exports of fabricated metals, electrical and nonelectrical machinery, and especially transportation equipment (automobiles and airplanes) contributed substantially to these exports. Alabama and Tennessee also have exported significant quantities of fabricated metals and machinery.

Reverse Investment. Foreign investment in the United States, or reverse investment as it is usually called, also has acquired increasing importance as the U.S. has become more attractive for investments from abroad, both foreign and repatriated, due to devaluation and stabilization of the dollar and the natural attractiveness of the American market and investment conditions. Germany's Volkswagen and Sweden's Volvo have made public their intentions to open at least one automobile plant in the U.S., and other large foreign corporations are thinking along the same lines.

The benefits that can be derived from reverse investment are obvious. In Tennessee alone, in the past five years 14 foreign-owned firms producing a variety of goods and services have pumped more than $108 million into the state's economy and have created more than 3,000 job opportunities. In North Carolina, 75 foreign companies from 13 countries have invested over half a billion dollars in industrial operations, resulting in the creation of an estimated 17,000 jobs.

Nationwide, international interests have about $38 billion currently invested in the United States, with approximately one third directly invested in plants and markets in the country. The prospects for additional investments, however, are astonishingly brighter. The potential for reverse investment is better than it has been in a long time. West Germany alone has some $6 billion to $7 billion "surplus" U.S. dollars, and Japan three times as many. It is possible, therefore, that with a dynamic and comprehensive investment program,
foreign investment can make a significant contribution to the growth and economic development of the Southeast.

Goals

The ultimate goal for the Southeast in the field of foreign trade and investment should be to maximize the contribution of the international sector to the region's overall economic growth.

Specific objectives in this area would include the following:

1. To considerably increase the level of income of the region through the creation of new sources of employment and economic activity generated by increased international trade operations.

2. To implement programs that will result in the establishment of foreign firms in the Southeast because of the region's responsiveness to their needs and effectiveness in fulfilling their requirements.

3. To maximize the benefits obtained from export promotion efforts and efforts to attract reverse investment by individual state and local organizations by creating a body or organization that would coordinate their activities throughout the area into an effective and comprehensive regional action plan.

Knowledge of regional resources and individual markets, as well as the international investment climate, is necessary in order to direct energies where they are most likely to succeed. This could be accomplished by the effective implementation of a program or set of programs aimed at creating the conditions that will make the achievement of the established objectives feasible.

Programs

The first step in accomplishing the objectives mentioned above would be to create a region-wide organization with the responsibilities of preparing specific programs in the export promotion and reverse investment promotion fields and devising ways in which these programs could best be implemented in order to maximize their effectiveness. This southeastern international organization would be organized on the state level as well as the regional, and would provide operational liaison and coordination of activities carried out by its state elements. They, in turn, would coordinate their efforts with state and local development offices, overseas state trade promotion offices, and federal development efforts in their respective areas.
Some suggested programs that should be included in a more detailed and comprehensive plan to be developed by the southeastern international organization are as follows:

(1) Evaluate the international market for southeastern products with the purpose of identifying the market potential of regional products, as well as their magnitude and character. Simultaneously, conduct an analysis of the regional industrial potentials to determine the exportability of those commodities for which a potential market has been identified.

(2) Sponsor and conduct, in concert with the state elements, an economic information and trade leads reference service similar to the services now available in New York and Pennsylvania. This service should be prepared and conducted with the objective of fulfilling the specific needs of the southeastern region. It would generate information from direct contacts and analyses, as well as screen and disseminate information obtained from other sources such as the Department of Commerce. High-quality, up-to-date information also is needed to favorably promote increased reverse investment in the area. This need should be recognized and the required system set up to obtain and disseminate all the necessary information.

(3) Organize and coordinate federal support measures into effective action programs; assist state and local public and private organizations in taking full advantage of these measures.

(4) Study the possibility of creating regional export combinations in order to increase the effectiveness of export marketing programs by combining individual resources into sectorial export efforts.

(5) Evaluate the adequacy of existing export-related services and promote the establishment of new services or the expansion of existing ones as required. Foreign commerce cannot develop in isolation. It must relate to other productive and service activities. In generating export trade, therefore, the additional services required (banking, insurance, forwarding, etc.) should be made available throughout the region. This could mean that existing firms and institutions in the area will have to expand their range of services as well as enter new fields of activity to assure regional self-sufficiency in international trade operations.
(6) Organize, direct, and participate in international investment and trade seminars, workshops, and conferences in cooperation with other agencies to develop more interest on the part of southeastern companies in actively exporting their products.

(7) Plan and organize investment and trade missions to attract foreign investment and to promote the products of the region, as well as coordinate those missions prepared at the state level to expose the whole area to the benefits derived from them.

(8) Establish resident investment and trade representatives, such as those recently established in Tokyo, Brussels, Brazil, and Canada by the State of Georgia, in order to keep abreast of developments in those areas that are relevant to the trade and investment objectives of the region and to maintain direct contact with potential investors and export markets.

(9) Make continuous efforts to expand facilities of southeastern ports by improving docks, warehouses, and other storage facilities.

Preparing the southeastern region for greater and more direct participation in world trade not only will offer effective responses to national foreign policy goals and contribute to the acceleration of the economic growth of the region; in addition, if these programs prove successful, the region could be used as a prototype for involving other sections of the country in more direct participation in the development of investment and trade promotion policies.
### Appendix A

EMPLOYMENT BY SECTOR FOR THE STATES, SOUTHEASTERN REGION, AND UNITED STATES, 1960 AND 1970

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Mining</th>
<th>Transportation &amp; Public Utilities</th>
<th>Wholesale &amp; Retail Trade</th>
<th>Finance, Insurance, &amp; Real Estate</th>
<th>Services</th>
<th>Government</th>
<th>Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alabama</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>1,096.8</td>
<td>8.3</td>
<td>48.5</td>
<td>324.4</td>
<td>55.5</td>
<td>189.7</td>
<td>41.3</td>
<td>130.6</td>
</tr>
<tr>
<td>1960</td>
<td>930.5</td>
<td>13.0</td>
<td>43.2</td>
<td>237.0</td>
<td>50.1</td>
<td>150.8</td>
<td>32.5</td>
<td>90.1</td>
</tr>
<tr>
<td><strong>Florida</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>2,268.7</td>
<td>8.5</td>
<td>172.1</td>
<td>324.2</td>
<td>155.4</td>
<td>567.2</td>
<td>132.4</td>
<td>397.0</td>
</tr>
<tr>
<td>1960</td>
<td>1,441.6</td>
<td>8.5</td>
<td>121.8</td>
<td>206.7</td>
<td>101.1</td>
<td>360.9</td>
<td>82.5</td>
<td>218.6</td>
</tr>
<tr>
<td><strong>Georgia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>1,646.7</td>
<td>6.9</td>
<td>76.5</td>
<td>462.2</td>
<td>106.7</td>
<td>330.8</td>
<td>77.5</td>
<td>187.3</td>
</tr>
<tr>
<td>1960</td>
<td>1,234.1</td>
<td>5.6</td>
<td>55.3</td>
<td>340.8</td>
<td>73.2</td>
<td>224.9</td>
<td>49.1</td>
<td>116.1</td>
</tr>
<tr>
<td><strong>Kentucky</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>1,066.1</td>
<td>28.1</td>
<td>49.1</td>
<td>251.0</td>
<td>58.8</td>
<td>180.9</td>
<td>35.0</td>
<td>137.0</td>
</tr>
<tr>
<td>1960</td>
<td>888.7</td>
<td>34.0</td>
<td>35.9</td>
<td>171.6</td>
<td>52.5</td>
<td>139.8</td>
<td>25.0</td>
<td>84.8</td>
</tr>
<tr>
<td><strong>Mississippi</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>709.4</td>
<td>6.4</td>
<td>33.1</td>
<td>181.5</td>
<td>30.0</td>
<td>106.1</td>
<td>21.1</td>
<td>67.3</td>
</tr>
<tr>
<td>1960</td>
<td>643.0</td>
<td>6.7</td>
<td>22.5</td>
<td>119.9</td>
<td>25.4</td>
<td>84.5</td>
<td>13.5</td>
<td>44.0</td>
</tr>
<tr>
<td><strong>North Carolina</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>2,018.3</td>
<td>3.8</td>
<td>96.5</td>
<td>717.4</td>
<td>92.3</td>
<td>321.3</td>
<td>69.4</td>
<td>209.9</td>
</tr>
<tr>
<td>1960</td>
<td>1,611.5</td>
<td>3.3</td>
<td>65.2</td>
<td>509.3</td>
<td>64.5</td>
<td>219.8</td>
<td>42.1</td>
<td>127.1</td>
</tr>
<tr>
<td><strong>South Carolina</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>917.4</td>
<td>1.7</td>
<td>50.2</td>
<td>340.0</td>
<td>37.3</td>
<td>142.4</td>
<td>29.8</td>
<td>89.2</td>
</tr>
<tr>
<td>1960</td>
<td>777.5</td>
<td>1.6</td>
<td>34.6</td>
<td>244.8</td>
<td>25.5</td>
<td>103.1</td>
<td>21.3</td>
<td>55.5</td>
</tr>
<tr>
<td><strong>Tennessee</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>1,479.1</td>
<td>7.1</td>
<td>62.5</td>
<td>466.5</td>
<td>66.6</td>
<td>258.1</td>
<td>57.5</td>
<td>182.7</td>
</tr>
<tr>
<td>1960</td>
<td>1,178.4</td>
<td>7.3</td>
<td>46.8</td>
<td>315.6</td>
<td>55.3</td>
<td>194.0</td>
<td>39.7</td>
<td>120.4</td>
</tr>
<tr>
<td><strong>8-State Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>11,202.5</td>
<td>70.8</td>
<td>588.5</td>
<td>3,067.2</td>
<td>602.6</td>
<td>2,096.5</td>
<td>464.0</td>
<td>1,401.0</td>
</tr>
<tr>
<td>1960</td>
<td>8,705.3</td>
<td>80.0</td>
<td>425.3</td>
<td>2,145.7</td>
<td>447.6</td>
<td>1,477.8</td>
<td>305.7</td>
<td>856.6</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>75,140.0</td>
<td>622.0</td>
<td>3,345.0</td>
<td>19,369.0</td>
<td>4,504.0</td>
<td>14,922.0</td>
<td>3,690.0</td>
<td>11,630.0</td>
</tr>
<tr>
<td>1960</td>
<td>61,291.0</td>
<td>712.0</td>
<td>2,885.0</td>
<td>16,796.0</td>
<td>4,004.0</td>
<td>11,391.0</td>
<td>2,669.0</td>
<td>7,423.0</td>
</tr>
</tbody>
</table>

BIBLIOGRAPHY


Copeland, Lewis C., Tourists and the Southern Travel Business During 1968: An Economic Analysis, prepared for the Southern Travel Directors Council, by the Department of Statistics, College of Business Administration, The University of Tennessee, Knoxville, June 1969.

Copeland, Lewis and Leona, Tourists and the Southern Travel Business During 1971: An Economic Analysis, prepared for the Southern Travel Directors Council, by the College of Business Administration, The University of Tennessee, Knoxville, February 1972.

Farm Programs for the 1970's, CAED Report No. 32, Iowa State University, Ames, Iowa, 1968.


Hammond, Ross W., Economic Development Trends in the 16-State South, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, Atlanta, March 1972.


*The Structure of Southern Farms of the Future*, proceedings of a two-day conference by the Agricultural Policy Institute, North Carolina State University and Alabama Cooperative Extension Service, Auburn University, August 1968.


______, *National Growth, the Rural Component*, papers presented at the National Workshop on Rural Development, October 18-20, 1971, at the University of Nebraska.
Wastes in Relation to Agriculture and Forestry, Miscellaneous Publication No. 1069, March 1968.


Cash Receipts and Value of Home Consumption by States, 1924-51.


Census of Agriculture, 1969.


QUARTERLY REPORTS:

SEPTEMBER - NOVEMBER 1973 (INCLUSIVE)
DECEMBER 1973 - FEBRUARY 1974 (INCLUSIVE)
BOUND IN PART III.
A PROGRAM OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED COUNTIES IN GEORGIA

by
William C. Ward, Jr.
Hardy S. Taylor
Charles C. Wommack

INDUSTRIAL DEVELOPMENT DIVISION

Quarterly Report
July, August, and September

1974

Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
Atlanta, Georgia
A PROGRAM
OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED EDA COUNTIES IN GEORGIA

Quarterly Report
July, August, and September
by
William C. Ward, Jr.
Senior Research Scientist
Hardy S. Taylor
Senior Research Scientist
Charles C. Wommack
Research Scientist

This technical assistance study was accomplished by professional consultants under contract with the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the contractor and do not necessarily reflect the views of the Economic Development Administration.

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology
October 1974
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td><strong>BACKGROUND INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Economic Characteristics of Service Area</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B. Organization and Establishment of Center</td>
<td>1</td>
</tr>
<tr>
<td>II.</td>
<td><strong>PROGRAM ADMINISTRATION</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>A. Program Objectives</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>B. Technical Assistance Service</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>C. Project Personnel</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>D. Phasing of Work Program</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>E. Relationship to Other Development Efforts</td>
<td>1</td>
</tr>
<tr>
<td>III.</td>
<td><strong>STRATEGY FOR SUBREGIONS</strong></td>
<td>2</td>
</tr>
<tr>
<td>IV.</td>
<td><strong>TECHNICAL ASSISTANCE PROJECTS</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>A. Location</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>B. Highlights of Project Activity</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>C. Project Summaries</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Central Savannah River Economic Development District</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Coastal Plain Economic Development District</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Georgia Mountains Economic Development District</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Heart of Georgia Economic Development District</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Northeast Georgia Economic Development District</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Oconee Area Economic Development District</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Slash Pine Area Economic Development District</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Southwest Georgia Economic Development District</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Middle Flint Economic Development District</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Chattahoochee-Flint Economic Development District</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Coastal Area Economic Development District</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Lower Chattahoochee Economic Development District</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Projects Outside of Economic Development District</td>
<td>26</td>
</tr>
<tr>
<td>V.</td>
<td><strong>EVALUATION OF PROGRAM EFFORT</strong></td>
<td>31</td>
</tr>
</tbody>
</table>

**EXHIBITS**

1. Organization Chart - Georgia Institute of Technology                                  | 33   |
2. Organization Chart - Industrial Development Division                                   | 34   |
3. Biographical Sketches                                                                  | 35   |
CHARTS

1. Economic Characteristics of EDA - Designated Counties - Georgia (Reported only in the first quarterly and final reports)
2. Waived
3. Regional Economic Development Center Activity Report
4. Summary of Project Activity by Type and Subregion
5. Job Impact Summary

MAPS

1. Area of Field Office Responsibility
2. Economic Development Districts
3. EDA Counties and EDD's as of 1 January 1974
I. Background Information
   A. Economic Characteristics of Service Area
      To be reported only in the first quarterly progress report and the final report.
   B. Organization and Establishment of Center
      To be reported only in the first quarterly progress report and the final report.

II. Program Administration
   A. Program Objectives
      To be reported only in the first quarterly progress report and the final report.
   B. Technical Assistance Services
      To be reported only in the first quarterly progress report and the final report.
   C. Project Personnel
      To be reported only in the first quarterly progress report and the final report.
   D. Phasing of Work Program
      This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 26th day of June 1972.
   E. Relationship to Other Development Efforts
      In furthering the EDA objectives in Georgia, the Industrial Development Division works closely with representatives of the following organizations:
      Georgia State Office of Planning and Budget - Georgia Department of Community Development - Economic Development Districts - Area Planning and Development Commissions - Chambers of Commerce - local Industrial Development groups - Coastal Plains Regional Commission - Small Business Administration - EDA Economic Development Representatives.

      Particular attention is directed to working with the EDD's and APDC's on individual projects. When an assistance project is opened these organizations are notified that IDD will be working in their area and a monthly progress report of activity on projects within their area is furnished.

      Cooperation with the above mentioned organizations is enhanced by IDD activities other than EDA within the state wherein IDD personnel are in almost constant contact with these groups.
III. Strategy for Subregions

To be reported only in the first quarterly progress report and the final report.

IV. Technical Assistance Projects

A. Location

Map 3 identifies the counties in which work was performed under the program and indicates the number of projects conducted in each county.

B. Highlights of Project Activity

Chart 3 summarizes the highlights of project activity by major program categories. Chart 4 summarizes the project activity by type and subregion to indicate the distribution of effort throughout the state. Chart 5 summarizes the project activity by type and subregion to indicate the job impact.

The following projects were selected for special mention:

Project 673: This packaging equipment manufacturer requested IDD assistance in resolving a problem with the glue application components of its machinery and with planning on expansion of its plant. The IDD staff undertook a search for a supplier of glue application mechanisms which could be used in this company's machinery. Information was supplied to this firm from several equipment suppliers. Assistance was also provided in planning an expansion of the production facilities of this company. This company has completed the expansion of its plant building to twice its original size, and a potential solution to the glue problem is now being tried out.

Project 679: This sportswear manufacturer requested IDD assistance in securing financing for a plant expansion which would increase employment by thirty (30) employees. In meetings with company management, it was determined that an SBA 502 type loan would be the most logical source of financing for this plant expansion. Contact was made with representatives of the local development group and they indicated that the local development corporation would make the 502 loan application. Information needed for the application was assembled by company officials with the assistance of the IDD staff. The planned expansion of this manufacturing plant is now completed with an addition of 5,000 square feet of new production area. Employment has increased by 30 employees.

Project 680: This new manufacturer of woven upholstery fabric requested IDD assistance in determining cost data on the various types of fabric produced in order to have a data base upon which to base pricing decisions. During a visit by an IDD staff member, work was initiated in developing a system for collecting cost data. Assistance was also given in locating suppliers of specialized equipment needed by this company. A supplier of a specialized piece of equipment was identified.
and referred to the management of this company. A system for collecting cost data for use in making pricing decisions was developed by the company and implemented with IDD assistance.

C. Project Summaries

The 48 individual projects which were active during the quarter under the project of Management and Technical Assistance to businesses, industrial firms, and communities in designated Georgia counties are listed by Economic Development Districts and described on the following pages. These summary descriptions include an identification of the work performed and a statement of the results achieved. The 29 projects which were still active as of September 30, 1974 are listed under "Ongoing Projects" in each EDD.
General

The Central Savannah River Economic Development District consists of thirteen counties, of which ten are eligible Redevelopment Area counties: Burke, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, Screven, Taliaferro, Warren, and Wilkes. The Growth Centers are Augusta (Richmond County) and Swainsboro (Emanuel County).

New Projects

During the quarter one new project was established in this area.

Project 714: Assistance to a modular building manufacturer in Jenkins County

- Nature of Problem: This firm requested IDD assistance in developing plant expansion and layout plans for converting its production to modular apartments.

- Work Performed: An IDD staff member has met with the principal of this firm and discussed the needs of the company and the approach to be taken in the efforts to improve production.

- Results: The project is continuing.

Ongoing Projects

There are now two projects under way in this area. In addition to the new project above there is:

Project 659: Assistance to a metal products manufacturer in Jefferson County

- Nature of Problem: This firm which began operation one year ago has requested assistance in improving plant production efficiency in order to meet an increasing demand for its products.

- Work Performed: In an effort to improve production efficiency, IDD developed a plant layout for the existing plant building and met with company management to review and explain the new layout. Company management accepted the proposed layout and began the preliminary steps to implement it. This firm has decided that rather than improve the existing plant, the company will build a new building and abandon the existing plant. IDD has continued to assist the company in setting up its new plant which is now almost completed and is in partial operation.

- Results: The project is continuing.
Discontinued Projects

During the quarter four projects were discontinued in this area.

Project 680: Assistance to a textile manufacturer in Columbia County

Nature of Problem: This new manufacturer of woven upholstery fabric requested IDD assistance in determining cost data on the various types of fabric produced in order to have a data base upon which to base pricing decisions.

Work Performed: During a visit by an IDD staff member, work was initiated in developing a system for collecting cost data. Assistance was also given in locating suppliers of specialized equipment needed by this company. A supplier of a specialized piece of equipment was identified and referred to the management of this company.

Results: A system for collecting cost data for use in making pricing decisions has been developed by the company and implemented with IDD assistance. No further assistance is needed; the project is closed.

Project 694: Assistance to a paper products manufacturer in Augusta, Georgia (Growth Center)

Nature of Problem: This firm generates a large quantity of waste paper and waste wax. IDD assistance was requested in reducing this waste.

Work Performed: An IDD staff member visited this company to discuss this waste problem with management and to tour the facility to determine the type of waste and how it is being generated. It was recommended that the company have lab tests run on the waste material in order to determine the chemical characteristics in order to determine the best recovery method.

Results: Company management has advised IDD of their decision to discontinue this waste reclaiming project.

Project 695: Assistance to a wood products manufacturer in Augusta, Georgia (Growth Center)

Nature of Problem: The management of this firm requested IDD assistance with improving the layout of its sawing operation and in improving its materials handling methods for logs.

Work Performed: A visit was made to this company to collect the information needed to initiate work on designing an improved plant layout.

Results: Due to the complexity and high cost of possible solutions to the materials handling project, the management has decided to postpone any operational changes in this project; therefore, the project is closed.
Project 698: Assistance to a meat company in Augusta, Georgia (Growth Center)

Nature of Problem: This firm has gone out of business and requested IDD assistance in determining what type of industry could use its specially designed and constructed building so they could sell the property to a company that could generate employment in the area.

Work Performed: In a visit to this company's plant, an IDD staff member collected information on the plant and a detailed description of its special equipment. An attempt was made to identify what type of operation could best utilize this plant.

Results: Due to present money market conditions, the owners decided to discontinue efforts to sell this building; therefore, the project is closed.
The Coastal Plain Economic Development District consists of ten counties, of which eight are eligible Redevelopment Area counties: Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, and Turner. The Growth Centers are Valdosta (Lowndes County) and Tifton (Tift County).

**New Projects**

During the quarter no new projects were established in this area.

**Ongoing Projects**

There are now no projects under way in this area.

**Discontinued Projects**

During the quarter one project was discontinued in this area.

**Project 671: Assistance to an agricultural equipment manufacturer in Ben Hill County**

*Nature of Problem:* This manufacturer of agricultural equipment interested in expanding its operation requested IDD assistance in investigating the potentials of entering the manufacture of agricultural wheels.

*Work Performed:* Based upon this firm's estimate that a production level of 100,000 wheels annually will be required to achieve break-even, IDD undertook a market survey of the users of agricultural wheels. During the first week, a market demand of over 75,000 units was identified. Information was requested from suppliers on the cost and specifications of wheel manufacturing equipment. The IDD staff also assisted company management in its evaluation of the data supplied by equipment manufacturers in order to select the equipment best suited to their needs.

*Results:* Company management has completed its expansion and diversification planning for the production of agricultural wheels. However, due to the shortage of steel and other raw materials, as well as record-high interest rates, this expansion has been indefinitely postponed.
GEORGIA MOUNTAINS ECONOMIC DEVELOPMENT DISTRICT

General

The Georgia Mountains Economic Development District consists of 13 counties, of which six are eligible Redevelopment Area counties: Dawson, Forsyth, Rabun, Towns, Union, and White. The Growth Centers are Gainesville (Hall County) and Toccoa (Stephens County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There is now one project under way in this area.

Project 693: Assistance to an industrial development group in Union County

Nature of Problem: This industrial development group requested IDD assistance in the preparation of a conceptual design plan for an industrial district on a site which the group presently holds.

Work Performed: The IDD staff has conducted a field inspection of the proposed site of the planned industrial district. Before design work could proceed, aerial photography of the site and other data had to be obtained. Work on obtaining the photography and other data is now completed and design work is now under way.

Results: The project is continuing.

Discontinued Projects

During the quarter one project was discontinued in this area.

Project 647: Assistance to an industrial development authority in Habersham County

Nature of Problem: This industrial development authority requested assistance in developing plans for a new 37-acre industrial park in Baldwin, Georgia.

Work Performed: A meeting was held with representatives of this development group to discuss their plans for the industrial park and to collect data on the characteristics of the site for the park. Various tasks were assigned to the interested parties, and follow-up meetings were held when these tasks were completed. Work on the layout and design of the industrial park was completed and preliminary drawings were presented to the group. Another visit to the site was arranged in order to survey potential storm drainage problems and estimate the
extent of excavation needed to overcome the drainage problem. Several questions arose, such as the feasibility and economics of providing a railway spur to the site.

Results: A letter report was made to the development authority summarizing IDD's findings and recommendations. The questions which arose surrounding the feasibility of a railway spur were answered in the letter report. The project is closed.
HEART OF GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General

The Heart of Georgia Economic Development District consists of nine counties, of which seven are eligible Redevelopment Area counties: Dodge, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, and Wilcox. The Growth Center is Dublin/East Dublin (Laurens County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There is now one project under way in this area.

Project 687: Assistance to a health care firm in Dodge County

Nature of Problem: This health care firm requested IDD assistance in evaluating the feasibility of diversifying its operation to include the manufacture of fiber glass doors.

Work Performed: The IDD staff has visited this firm and discussed the planned manufacturing operation for producing fiber glass doors. At the suggestion of IDD, it was decided that the first step in evaluating the feasibility of such a venture should be a study of the market for doors. This market study has been completed and delivered to this group for use in planning. Efforts are now under way to secure financing for a facility to manufacture fiber glass doors. Local banks, as well as SBA officials, have been contacted in order to determine the best source of financing for this venture. The principals are now being assisted in the preparation of an application for an SBA 502 type loan.

Results: The project is continuing.

Discontinued Projects

During the quarter one project was discontinued in this area.

Project 705: Assistance to an electric motor rewinding company in Dublin, Georgia (Growth Center)

Nature of Problem: IDD assistance was requested by the owner of this company in Baxley, Georgia, in order to determine the feasibility of establishing a branch operation in Laurens County.
Work Performed: It was decided that the first step in determining the feasibility of the planned branch plant should be a study of the market for electric motor service in the Dublin area. Approximately 80 companies within the Dublin-Laurens County area were contacted in order to determine their need for electric motor rewinding and electrical equipment servicing. It was determined that the approximate annual market for motor rewinding is $50,000, and the annual market for electrical equipment service is $90,000 in the area surveyed.

Results: The owner of this company has been unable to arrive at a decision on the establishment of a branch facility in Dublin. Until the decision is made regarding this branch facility, no further assistance is needed; the project is closed.
The Northeast Georgia Economic Development District consists of ten counties, of which five are eligible Redevelopment Area counties: Greene, Madison, Morgan, Oglethorpe, and Walton. The Growth Center is Athens (Clarke County).

New Projects

During the quarter two new projects were established in this area.

Project 715: Assistance to an industrial development group in Madison County

Nature of Problem: This industrial development group requested IDD assistance through the Economic Development Coordinator of the Northeast Georgia APDC in determining what needs to be done in order to attract industry to its industrial park at Comer, Georgia.

Work Performed: The IDD staff has met with representatives of this development group and has visited the industrial park at Comer in an effort to determine the problem areas that have prevented any industry from locating in the park. Several changes have been suggested to the development group which will improve the physical attractiveness of the park. Work is continuing on the identification of other problems. A letter report to this development group has been prepared by the IDD staff which sets forth the findings and recommendations for improvement. A follow-up visit is planned to discuss this report with the group.

Results: The project is continuing.

Project 717: Assistance to a metal products manufacturer in Walton County

Nature of Problem: The engineering manager of this firm requested IDD help with a packaging problem created by an increase in business which has forced the use of commercial freight lines and resulted in a large increase of damaged products.

Work Performed: An IDD staff member visited this plant to review the packaging problem with the engineering staff. Several promising methods of resolving this packaging problem are being considered, and the IDD staff is continuing to provide information on these various methods.

Results: The project is continuing.

Ongoing Projects

There are now the two new projects above under way in this area.

Discontinued Projects

None.
General

The Oconee Area Economic Development District consists of seven counties, of which three are eligible Redevelopment Area counties: Hancock, Jasper, and Washington. The Growth Center is Milledgeville (Baldwin County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

None.
SLASH PINE AREA ECONOMIC DEVELOPMENT DISTRICT

General

The Slash Pine Area Economic Development District consists of eight counties of which six are eligible Redevelopment Area counties: Atkinson, Bacon, Brantley, Clinch, Coffee, and Pierce. The Growth Center is Waycross (Ware County).

New Projects

During the quarter four new projects were established in this area.

Project 708: Assistance to a new venture in corrugated box manufacturing in Clinch County

Nature of Problem: A group of individuals planning to establish a plant in the Homerville industrial park for the production of corrugated containers has requested IDD assistance in equipment selection, identification of potential suppliers of equipment, market study, and identification of sources of financing. Initial employment is projected to be 50.

Work Performed: A market study on corrugated box requirements in southern Georgia and northern Florida has been prepared and will be reviewed with company management.

Results: The project is continuing.

Project 709: Assistance to a sawmill in Clinch County

Nature of Problem: The owner of this sawmill and planing mill requested IDD assistance in reviewing their general plant safety conditions.

Work Performed: Upon visiting this firm it was found that it had been cited by OSHA for a number of safety violations. Efforts were immediately undertaken to develop recommendations for corrective measures, and arrangements were made for an EES staff member to perform noise level tests throughout the plant. The results of these tests and recommendations should enable this firm to satisfy OSHA regulations.

Results: The project is continuing.

Project 713: Assistance to an individual interested in establishing a warehouse in Waycross, Georgia (Growth Center)

Nature of Problem: An individual requested IDD assistance in evaluating the market demand for warehousing in the Ware County area.

Work Performed: A survey of the need for a warehousing facility in the Ware County area is being conducted by the IDD staff. This survey will be summarized in a report to this individual as soon as possible.

Results: The project is continuing.
Project 722: Assistance to an egg processing company in Coffee County

Nature of Problem: This company requested IDD assistance in resolving a materials handling problem in their plant which, if resolved, would reduce breakage of eggs.

Work Performed: In a visit to the plant, an IDD staff member found two materials handling methods in use, neither of which is entirely satisfactory. These two methods (rack, carton) are currently being studied to determine which is the more efficient method. Data are also being gathered on industry practices regarding this specific materials handling problem.

Results: The project is continuing.

Ongoing Projects

There are now the four new projects above under way in this area.

Discontinued Projects

During the quarter three projects were discontinued in this area.

Project 678: Assistance to an abattoir in Bacon County

Nature of Problem: This firm wished to expand into the institutional food market by establishing a facility for preparing portion-controlled meats. IDD assistance was requested in evaluating the institutional foods market and in the preparation of a financing proposal for such an expansion.

Work Performed: The IDD staff prepared a market study of the institutional foods market in Georgia. Assistance was also rendered in the collection of information on processing methods and equipment needed for the production of portion-controlled meats. Upon completion of the planning for their expansion, company officials requested that IDD assist them in evaluating various sources of financing for the expansion. In a meeting between IDD staff members, representatives of the local bank, local development authority representatives, and company officials, it was determined that the most appropriate method of financing this expansion would be an SBA 502 loan. Assistance was rendered in developing an application for this SBA loan.

Results: Due to the high current interest rates, company management has indefinitely postponed the planned expansion; therefore, the project is closed.

Project 688: Assistance to a candy company in Waycross, Georgia (Growth Center)

Nature of Problem: The owner of this company requested IDD assistance in finding a supplier of automated packaging equipment for use in packaging candy.

Work Performed: In a visit to this company, the IDD staff obtained detailed information on the packaging equipment needed. Based on the information obtained, parameters were established which must be met by the automated equipment being sought. Several potential suppliers of such equipment were contacted, and information on their products was supplied to this company.
Results: No further assistance is needed; the project is closed.

Project 690: Assistance to a wood products manufacturer in Coffee County

Nature of Problem: This firm requested IDD assistance in evaluating the feasibility of diversifying its product line. One product under consideration was wooden reels for wire storage.

Work Performed: In a visit to this company, the IDD staff determined that assistance was needed in locating sources of supply, collection of market information, evaluation of production equipment needed, and identification of potential suppliers of such equipment. IDD assisted by locating sources of supply for the materials needed for the production of wooden wire reels. Information on various types of equipment needed for wooden reel production was also collected.

Results: As a result of this diversification, this company is in the process of expanding its plant by 16,500 square feet and is increasing its work force of 22 employees. No further assistance is needed; the project is closed.
The Southwest Georgia Economic Development District consists of 13 counties, of which nine are eligible Redevelopment Area counties: Baker, Calhoun, Grady, Lee, Miller, Mitchell, Seminole, Terrell, and Worth. The Growth Centers are Albany (Dougherty County) and Bainbridge (Decatur County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now three projects under way in this area.

Project 684: Assistance to an agricultural equipment manufacturer in Decatur County

Nature of Problem: Due to expanded sales and the addition of a new product line, this firm has outgrown its present manufacturing facility. IDD assistance has been requested in planning an expansion of the existing plant and in developing a plant layout for the expanded plant in order to achieve an efficient work flow.

Work Performed: Information needed for the development of expansion plans and plant layout design has been requested from company officials. In connection with this plant layout work, IDD has collected and provided to this company information on paint drying booths and inventory and production control systems. Construction is now under way on an expansion of 20,000 square feet to the existing plant building.

Results: The project is continuing.

Project 700: Assistance to a wood products manufacturer in Albany, Georgia (Growth Center)

Nature of Problem: This firm now manufactures roof trusses for the mobile home industry and wooden mattress frames for mattress manufacturers. IDD assistance has been requested in investigating the feasibility of further diversification into wood pallet manufacturing.

Work Performed: A market survey of the market for pallets within 150 miles of Albany, Georgia, has been conducted and summarized in a report to this company. Information has also been supplied on pallet designs used by various industries and typical prices and volume purchasing arrangements commonly used. Based on the information provided by IDD, this firm decided to begin producing wooden pallets as soon as equipment could be obtained. Limited production of wooden pallets is now under way and is gradually developing into a stable product line.

Results: The project is continuing.
**Project 706: Assistance to an individual interested in developing a new food store concept in Albany, Georgia (Growth Center)**

**Nature of Problem:** This individual has requested IDD assistance in planning a production facility similar to a mobile home manufacturing operation. He has developed and built a prototype of a relocatable food service store and plans to begin producing a similar unit as soon as financing can be arranged for a new plant.

**Work Performed:** Arrangements have been made for this individual to visit several mobile home manufacturing plants in the Albany area. He has also been put in contact with the owners of a closed mobile home manufacturing plant since he may possibly be interested in buying this facility. Assistance is also being rendered in preparing the information needed for an SBA 502 loan application.

**Results:** The project is continuing.

---

**Discontinued Projects**

During the quarter three projects were discontinued in this area.

**Project 670: Assistance to a metal products manufacturer in Grady County**

**Nature of Problem:** This firm requested IDD assistance in determining the market potential of a new type truck bumper which has recently been developed and produced on a pilot scale. Assistance was also requested in planning for the capital investment necessary for plant expansion and new equipment to manufacture this new product.

**Work Performed:** Data were collected for a market study on the market for truck bumpers, including information on distribution patterns common to similar products. The completed market study on truck bumpers was forwarded to this firm for its use in planning. Assistance was also rendered in analyzing the capital investment requirements for the introduction of this new product. Due to a tremendous increase in orders for this company's gasoline tanks, company officials decided to de-emphasize the development of the new line of truck bumpers. Information was collected and supplied to management on plastic lining material which could be used in the production of gasoline cans.

**Results:** This company has been unable to reach a decision on which of several products under consideration to select for the planned expansion/diversification of its operation. The project is being closed and will be reopened in the future when the company's needs are better defined.

**Project 683: Assistance to a new venture in pecan processing in Lee County**

**Nature of Problem:** An individual interested in establishing a pecan shelling operation requested IDD assistance in preparing the information needed to secure bond financing.
Work Performed: Upon IDD's recommendation, this individual contacted two bond underwriting firms and selected one of these firms to handle the bond issue. IDD assisted this individual in developing information needed to support a financial proposal for use by the bond underwriting firm. Due to currently high interest rates, the underwriting firm advised against issuing bonds at this time. The principals are investigating other means of financing this venture.

Results: Due to the principals' inability to secure financing due to unfavorable money market conditions, this new venture has been indefinitely postponed. The project is closed.

Project 692: Assistance to a tool and die firm in Albany, Georgia (Growth Center)

Nature of Problem: This Florida firm requested IDD assistance in collecting information relative to the need for a tool and die shop in Albany. If there is sufficient need for such a shop, this firm plans to set up a branch facility in Albany.

Work Performed: The company was supplied a copy of a 1967 Directory of Tool and Die Shops in Georgia and work was under way to update this information on the Albany area of the state. Several industrial concerns in Albany were contacted to determine their tool and die needs.

Results: The information supplied by IDD to this company has been reviewed by company management and management has advised IDD that the planned branch facility for Albany would have to be postponed for various reasons. The project is closed.
MIDDLE FLINT ECONOMIC DEVELOPMENT DISTRICT

General

The Middle Flint Economic Development District consists of eight counties, of which six are eligible Redevelopment Area counties: Dooly, Macon, Marion, Schley, Taylor, and Webster. The Growth Center is Americus (Sumter County).

New Projects

During the quarter one new project was established in this area.

Project 711: Assistance to a municipal government in Crisp County

Nature of Problem: Due to the current ineffectiveness of the industrial development efforts of this community, the new city manager has requested that IDD provide assistance in guiding him toward a more effective industrial development program.

Work Performed: Efforts are now under way in analyzing the present industrial development organizations and in developing recommendations for improvements.

Results: The project is continuing.

Ongoing Projects

There are now three projects under way in this area. In addition to the new project above there are:

Project 676: Assistance to a development group in Dooly County

Nature of Problem: This development group has requested IDD assistance in determining whether to use a 35-acre site in Vienna, Georgia, for commercial or industrial use.

Work Performed: A visit was made to the site by two IDD staff members, and information on the site was collected during this visit. A report detailing the advantages and disadvantages to industrial versus commercial development of the site has been prepared and forwarded to the development group. This development group has now decided on commercial development of the site, and efforts have begun in developing a comprehensive land use plan for this site.

Results: The project is continuing.

Project 697: Assistance to an individual interested in establishing a tool and die shop in Webster County

Nature of Problem: An individual interested in establishing a new venture in machinery repair and tool and die manufacturing requested IDD assistance in securing financing for such a venture.
Work Performed: Work has been initiated in the preparation of an SBA loan application including the preparation of market information and pro forma financial statements. SBA has reviewed this application and has requested additional information. SBA approval is expected soon after this additional information is submitted. The revised application has now been resubmitted to SBA, and the principals are now awaiting a reply.

Results: The project is continuing.

Discontinued Projects

During the quarter three projects were discontinued in this area.

Project 679: Assistance to a garment manufacturer in Taylor County

Nature of Problem: This sportswear manufacturer requested IDD assistance in securing financing for a plant expansion which would increase employment by thirty (30) employees.

Work Performed: In meetings with company management, it was determined that an SBA 502 type loan would be the most logical source of financing for this plant expansion. Contact was made with representatives of the local development group and they indicated that the local development corporation would make the 502 loan application. Information needed for the application was assembled by company officials with the assistance of the IDD staff.

Results: The planned expansion of this manufacturing plant has now been completed with an addition of 5,000 square feet of new production area. Employment has been increased by 30 employees. No further assistance is needed at this time. The project is closed.

Project 703: Assistance to a utility building manufacturer in Taylor County

Nature of Problem: The Georgia State Fire Marshal's office is requiring that this company's product be certified under the present code. IDD assistance was requested by company management in bringing their unit up to the standards set forth in the code.

Work Performed: In a visit to this firm's plant, specific suggestions were made on changes required to meet code standards. The company is now in the process of implementing these changes and preparing scaled drawings of the product. The drawings will be used in acquiring certification from the State Fire Marshal's office.

Results: This company's immediate problems with meeting the building code requirements have now been resolved. Further assistance may be required on this matter in the future. However, at this time, no assistance is needed. The project is closed.
Project 704: Assistance to a medical therapist group in Schley County

Nature of Problem: Two individual medical therapists requested IDD assistance in evaluating the potential of establishing a clinic in Ellaville, Georgia, to distribute medical appliances and to provide enterostomal therapist services.

Work Performed: A survey of hospitals in the area surrounding Ellaville was made to determine the need for such products and services. This survey indicated a very small number of individuals needing such a clinic.

Results: The results of the market survey have been incorporated in a letter report to these individuals, and no further assistance is anticipated. The project is closed.
General

The Chattahoochee-Flint Economic Development District consists of nine counties, of which three are eligible Redevelopment Area counties: Heard, Meriwether, and Pike. The Growth Centers are Carrollton (Carroll County) and La Grange (Troup County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

None.
General

The Coastal Area Economic Development District consists of six counties, of which four are eligible Redevelopment Area counties: Bryan, Camden, Long, and McIntosh. The Growth Centers are Brunswick (Glynn County) and Hinesville (Liberty County).

New Projects

During the quarter one new project was established in this area.

Project 719: Assistance to an individual interested in manufacturing beekeeping wooden ware in Brunswick, Georgia (Growth Center)

Nature of Problem: This individual requested IDD assistance in evaluating the feasibility of establishing a manufacturing facility for producing beekeeping wooden ware products.

Work Performed: The IDD staff collected data on the market for beekeeping wooden ware which included a recent market study. This information was sent to this individual and a meeting is planned to discuss this material with him.

Results: The project is continuing.

Ongoing Projects

There is now the one new project above under way in this area.

Discontinued Projects

None.
LOWER CHATTahooCHEE ECONOMIC DEVELOPMENT DISTRICT

General

The Lower Chattahoochee Economic Development District consists of seven counties, of which five are eligible Redevelopment Area counties: Clay, Early, Quitman, Randolph, and Stewart. The Growth Center is Columbus (Muscogee County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There is now one project under way in this area.

Project 699: Assistance to a development group in Columbus, Georgia (Growth Center)

   Nature of Problem: Two individuals interested in building a convention facility in Columbus, Georgia, requested IDD assistance in determining the feasibility of such a project.

   Work Performed: A meeting has been held with the two principals in order to secure detailed information on the plans for establishing a convention center in Columbus, Georgia. Based on information secured in this meeting, work has begun in collecting data on other convention centers in order to determine the feasibility of the project.

   Results: The project is continuing.

Discontinued Projects

None.
PROJECTS OUTSIDE OF ECONOMIC DEVELOPMENT DISTRICTS

General

During the quarter fourteen projects were active in counties outside of the Economic Development Districts.

New Projects

During the quarter six new projects were established in this area.

Project 710: Assistance to a box manufacturer in Floyd County

Nature of Problem: The owner of this firm requested IDD assistance in determining the demand for a service company providing job shop packaging and mailing of sample and promotional items in the Southeast.

Work Performed: IDD efforts were directed to developing a list of companies in the Southeast which utilize sample mailouts to advertise their products. This effort resulted in a list of 123 companies which was supplied to company management for use in their efforts to increase sales volume.

Results: The project is continuing.

Project 712: Assistance to a furniture manufacturer in Henry County

Nature of Problem: The president of this company requested IDD assistance in planning an expansion of the company's production facility.

Work Performed: Based on information supplied by IDD and collected from other sources, the company president has decided that, rather than build a new plant facility, his existing plant should be expanded. Work is continuing in the area of identifying sources of financing for this plant expansion.

Results: The project is continuing.

Project 716: Assistance to a bottling company in Paulding County

Nature of Problem: This company is a small contract bottler and packager. The owner has several long-term contracts pending with reputable firms if he can increase his production. More capital is drastically needed, and he has requested IDD assistance in advising him in determining the most feasible method to obtain the financing.

Work Performed: Work has been undertaken to analyze this company's operating history and financial statements in order to make a determination on the most feasible method of financing the needed expansion.

Results: The project is continuing.
Project 720: Assistance to a garment manufacturer in Paulding County

Nature of Problem: The new plant manager of this operation requested IDD assistance in improving operating efficiency and worker productivity in his efforts to achieve profitable operations after a considerable period of losses.

Work Performed: In a visit to this plant, the IDD staff found that serious materials handling problems exist and improvements in plant layout are needed in order to implement more efficient materials handling methods and to improve worker productivity. In a second visit to this plant, management was supplied with data on sewing plant operations and data were gathered in connection with work on designing an improved plant layout.

Results: The project is continuing.

Project 721: Assistance to a construction equipment manufacturer in Gilmer County

Nature of Problem: The president of this company requested IDD assistance in correcting a serious financial problem created by excessive materials inventory.

Work Performed: This company built up its materials inventory in preparation for production under contract to a large customer. The customer has now defaulted on the purchase contract and has left this company with about $40,000 of unneeded inventory. IDD efforts are now being directed toward finding a use for this inventory which will yield sufficient revenue for the company to correct the serious current financial problem.

Results: The project is continuing.

Project 723: Assistance to a carpet tufting plant in Murray County

Nature of Problem: This company's operation is based on commissioned tufting for large carpet manufacturers. Due to the drop in sales caused by the slump in the housing industry, the large companies no longer need the services of this company. The company management has requested IDD assistance in finding alternative sources of revenue.

Work Performed: A meeting between several IDD staff members and company management is being arranged to explore possible approaches to assisting this company.

Results: The project is continuing.

Ongoing Projects

There are now eleven projects under way in this area. In addition to the six new projects above there are:
Project 667: Assistance to an industrial development group in Crawford County

Nature of Problem: A newly formed economic development group in Crawford County requested IDD assistance in determining what types of businesses might best fit the resources available in Crawford County.

Work Performed: Meetings have been held with county commissioners and representatives of the local development group in order to define the objectives of the project and to gather information on the area. Efforts are continuing in the collection of information on local resources, and an analysis of the resources as they relate to industrial and economic development has been initiated. An EDA grant of $140,000 has been awarded for the expansion of the Roberta-Crawford County industrial park. Work on this expansion is now under way with the extension of roads and utility lines into the park.

Results: The project is continuing.

Project 689: Assistance to a new venture in charcoal manufacturing in Tattnall County

Nature of Problem: A group of individuals interested in establishing a manufacturing plant in the Reidsville area to convert wood wastes into bulk charcoal and charcoal briquets has requested IDD assistance in determining the feasibility of such a venture.

Work Performed: In meetings with these individuals, it has been determined that the pivotal question to resolve is the availability of sufficient wood residues in the area to support such a venture. All firms in the area which may have wood waste which could be available to this new charcoal manufacturer have been surveyed and the results are being tabulated and included in a report to this group. Based on the favorable results of the survey of wood residue availability, this group is now negotiating a joint venture with an equipment supplier for the purpose of establishing a charcoal manufacturing plant.

Results: The project is continuing.

Project 691: Assistance to an individual interested in brick manufacturing in Fannin County

Nature of Problem: An individual in Fannin County has requested IDD assistance in investigating the feasibility of manufacturing bricks.

Work Performed: A market study on the potential market for bricks in the area surrounding Fannin County has been initiated. Information is also being collected on the availability of a plant site with an adequate supply of clay for brick manufacturing.

Results: The project is continuing.
Project 696: Assistance to a development group in Douglas County

Nature of Problem: This development authority is in the process of acquiring approximately 250 acres of land for an industrial park. IDD assistance has been requested in designing and planning this industrial district.

Work Performed: Work has been initiated in assembling the materials needed to develop a park layout and site flyer. A field inspection of the site has been made and information needs were determined at that time. Efforts are now under way to collect the needed information for planning this industrial park.

Results: The project is continuing.

Project 707: Assistance to an individual in Effingham County

Nature of Problem: This individual is interested in establishing a hot-dip galvanizing operation in Effingham County. IDD assistance has been requested in studying the feasibility of starting such a venture.

Work Performed: In cooperation with this individual, IDD is developing information in the following five areas: (1) market potential for hot-dip galvanizing in the surrounding area; (2) capital requirements for a plant and equipment; (3) plant site's requirements; (4) fuel requirements for galvanizing operation; and (5) environmental impact considerations. Based on the favorable preliminary findings in the above areas, the IDD staff is now assisting this individual in preparing material needed to secure financing.

Results: The project is continuing.

Discontinued Projects

During the quarter three projects were discontinued in this area.

Project 642: Assistance to a wine manufacturing company in Crawford County

Nature of Problem: Due to this firm's diversification into processing fruits other than peaches, it anticipates operating in the winter months and requested assistance in evaluating the feasibility of using fuels other than natural gas in order to avoid production problems during periods of natural gas curtailments.

Work Performed: Information was collected on the availability and cost of alternate fuels and was provided to company officials for their use in evaluating the feasibility of switching to such fuels. Based on information supplied by IDD, this company decided that converting its boiler to No. 2 fuel oil would be the least cost alternative to solving its winter fuel problems.

Results: The company is now in its rush season and is unable to devote time to future planning. The project is closed until such time as management can again devote time to this project.
Project 673: Assistance to a box closing equipment manufacturer in Jones County

Nature of Problem: This firm requested IDD assistance in resolving a problem with the glue application components of its machinery and with planning on expansion of its plant.

Work Performed: The IDD staff undertook a search for a supplier of glue application mechanisms which could be used in this company's machinery. Information was supplied to this firm from several equipment suppliers. Assistance was also provided in planning an expansion of the production facilities of this company.

Results: This company has completed the expansion of its plant building to twice its original size. No further assistance is needed at this time. The project is closed.

Project 701: Assistance to a pipe service company in Cobb County

Nature of Problem: This company inspects, cleans, and repairs large sewer lines. The owner was in the process of moving his operation to a new building and requested IDD assistance in designing a layout for the new building and in securing financing for the move.

Work Performed: In a meeting with the owner of this company, information on the dimensions of the planned building was secured in order to develop a layout. Assistance was also given in developing the information needed for a loan application to SBA. This loan was approved by SBA.

Results: This company has now begun construction on a 9,000 square foot building in the Douglas County industrial park. No further assistance is needed at this time. The project is closed.
V. Evaluation of Program Effort

In drawing conclusions about the program, it would not be difficult to overstate the impact of the work performed by IDD staff personnel on the individual projects; however, available information indicates some noteworthy results in the area of employment and jobs affected. A total of approximately 226 identifiable jobs have been created or saved in firms assisted by IDD. Approximately 47 identifiable jobs have been created in expanding companies which were assisted. In the new ventures which were aided by IDD, 74 new jobs either are being created or show definite promise of early establishment.

Conclusions regarding the overall impact of this program must be based upon a collective evaluation of the individual projects and their respective results. This evaluation should include not only a recognition of the fact that a deliberate attempt has been made to state the significance of IDD efforts in realistic terms, but also a consideration of the following special points concerning the results reported:

1. In many cases, the contributions of IDD staff personnel were major factors in management decisions to act or not to act on a specific plan of development. This was particularly true in those cases involving the development of new ventures.

2. In some situations, the end result would have been the same regardless of IDD participation. In such cases, IDD staff personnel helped to facilitate the achievement of an already determined goal.

3. In certain projects, IDD staff personnel filled a negative role by determining that a proposed course of action was not economically sound. The project staff felt that such actions, where they were taken, were in the best interests of all parties in the project. It is not enough to provide support for sound proposals; the unsound ones also must be identified.

Because of the preceding considerations, it is not practical to attempt to quantify results of this type program solely in terms of jobs created. Further, since it was the first program of its kind in a state-supported university, it is impossible to judge its merit on a comparative basis. It is necessary, therefore, to evaluate the program by empirical means. Several observations indicate that the management and technical assistance program to business and industry in Georgia has been beneficial:

1. After a modest start, the program has grown both in quantity of projects and in the comprehensiveness of the assistance offered. The program has been well received throughout Georgia and is being supported by the firms that have been assisted.

2. Consultants of all types have been kept apprised of Georgia Tech's management and technical assistance efforts and have worked in conjunction with IDD to further the program. All parties concerned seem to feel that the program is mutually beneficial.
3. Success of the original program has led to expansion of the project by the U. S. Department of Commerce's Economic Development Administra-
tion in Georgia and initiation of comparable programs by agencies in other states.

4. As a result of previous M&TA experience, IDD personnel provided counsel to the federal government in an effort to bridge the gap between the accumulated findings of governmental, education, and private research and the information needs of business and industry. This counsel eventually resulted in the passing of the State Technical Services Act of 1965.
Major Reports and Publications (continued).


TAYLOR, HARDY S. -2- Biographical Sketch

at agreements and procedural methods for operation of a U.S. Naval Air Station. Additionally, recruited, interviewed, selected and hired the initial group of 100 civilian personnel. Also negotiated and approved contracts for procurement of equipment, supplies and services from European sources to provide complete support for a station population of 1,800 people. Developed the idea and published a catalog in connection with a Simplified Issue Procedure for General Stores Material. This idea has been further developed and is widely used throughout the Naval Supply System.

Current Fields of Interest

All phases of area development activity, including industrial and community development, financial and inventory management, and management development.

Major Reports and Publications

1. Published a catalog in connection with a Simplified Issue Procedure for General Stores Material
2. Author of numerous published company studies; procedural systems manuals; and operational plans
7. "Economic Impact of Proposed Water and Sewerage System Improvements on Warrenton, Georgia," EDA Special Report, September or December 1967
10. "Economic Impact of a Proposed Industrial Park to be Located In Swainsboro, Georgia," EDA Special Report, January 1968 (coauthor)
12. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, February 1968
16. "Economic Impact of a Proposed Industrial District to be Located in Richmond County, Georgia," EDA Special Report, May 1968 (coauthor)
TAYLOR, HARDY S.--Assistant Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

University of Alabama, B.S. Business Administration and Pre-Law 1943
Harvard Graduate School of Business Administration 1944
University of Nebraska, Graduate School of Business Organization 1951
Defense Department Comptrollership School, Washington, D. C. 1955

Employment History

National Southern Products, Inc., Tuscaloosa, Alabama, Research Assistant 1943
Turco Products, Inc., Atlanta, Georgia, Representative and Field Engineer 1943-1964
U.S. Navy, Supply and Fiscal Officer/Comptroller 1943-1964
Gladwin Industries, Inc., Atlanta, Georgia, Treasurer (Controller) 1964-1966
Georgia Institute of Technology
Research Scientist 1966-1972
Senior Research Scientist 1972-Present
Head, Management and Technical Assistance Section 1968-Present
Head, EDA Services Section 1970-Present
Assistant Head, Industrial Services Branch, IDD, EES 1970-Present

Experience Summary: As the Assistant Head of the Industrial Services Branch, is responsible for directing the overall IDD program of management and technical assistance and EDA services to Georgia industry. Served as treasurer of a locally-based national corporation, primarily a manufacturer for the telephone industry, and was responsible for accounting and financial management, office administration and sales maintenance services, purchasing, customer relations and local sales, personnel administration, print shop operations and sales catalog maintenance. Served as a member of the board of directors of several corporations with national and international sales distribution. In 1964 completed twenty years in U.S. Navy as top departmental executive with experience in all phases of business and financial management with special emphasis on Controllership, which consisted of budgeting and internal auditing; and Supply and Fiscal operations consisting of: accounting and payroll, office administration and personnel management and training, procurement and contract negotiation and administration, inventory management, warehousing, traffic operations, quality control, industrial safety, and property disposal. Assisted in the development of, and in charge of implementation of, a new Inventory Management concept at the Naval Aviation Supply Office, which is the world wide inventory control point for all Naval Aviation spare parts and material. This concept was based on the maximum utilization of the latest Electronic Data Processing equipment and it resulted in the greatest advancement in the management of aviation material during the past several years. Served as Supply and Fiscal Office/Comptroller at several Naval Air Stations and directed a working staff of 75 to 300 civilian personnel. As the first U.S. Naval representative in Sicily, negotiated at the highest governmental levels in Sicily and in Rome in arriving
BETHEA, EDWIN A. -- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S., Knoxville College 1953
M.S.W., Howard University 1962
Certificate of Completion, Howard University's Small Business Guidance Center 1969

Employment History

District of Columbia, Department of Public Welfare, Caseworker, Child Welfare Division 1962-1965
Far East Community Services, Inc., Community Organizer-Youth Community Organizer 1965-1966
United Planning Organization, Community Organization Specialist (training officer), Economic Development Specialist 1966-1968
Youth Enterprises, Inc., Executive Director 1968-1970
Volunteers for International Technical Assistance, Director-Washington, D.C.; Director-East Central Regional Office 1970-1972
Consultant Employers
Office of Economic Opportunity; Manpower Assistance Project Inc.; University Research Corp.; Xerox Corporation; Commerce Department, Economic Development Administration.
Georgia Institute of Technology, Research Scientist 1972-Present

Experience Summary: Directed a regional office for technical assistance that provided services to minority and economically disadvantaged groups in mid Atlantic region; this entailed establishing, structuring, and supervising new program offices in several states within the region. Program developer for minority economic ventures and community development project; the responsibilities included establishing a working relationship with community groups, federal, state and local government agencies and/or private agencies whose interests were similar. Organized and managed a minority firm for the purpose of establishing "spin-off" business ventures and the training of minority entrepreneurs. Managed and developed programs aimed toward helping groups initiate and implement economic and social changes in their community such as employment practices, bureaucratic procedures, etc. Assisted quasi government and government department directors in community planning. Developed and directed programs relating to youth activities in the areas of training, proposal development, community improvement and change and economic developments.

Current Fields of Interest

Minority business development, industrial and community development, manpower management and motivation, transportation and new economic systems.
Major Reports and Publications (continued)

11. "Evaluation of Agriculturally Oriented and Wood-Based Manufacturing Opportunities in Carroll County, Georgia," Georgia Tech Report, February 1964, coauthor
CHIANG, TZE I.--Senior Research Economist, Industrial Development Division, Engineering Experiment Station

Education
B.A. in Agricultural Economics, Fukien Christian University 1946
M.S. in Agricultural Economics, Oklahoma State University 1955
Cornell University 1957 (Summer)
Ph.D. in Agricultural Economics, University of Florida 1958

Employment History
Junior high school teacher, Foochow, China 1946-1947
China Textile Industries, Inc. 1947-1953
Oklahoma State University, Graduate Assistant 1954-1955
University of Florida, Research Assistant 1955-1958
Georgia Institute of Technology
Assistant Research Economist 1958-1962
Research Economist 1963-1964
Senior Research Scientist 1965-Present

Experience Summary: Began as a teacher in a junior high school in 1946. Joined the China Textile Industries, Inc., in 1947, and rose gradually to the position of Assistant to the General Manager in 1953. At Oklahoma State University, accepted a graduate assistantship in collecting and analyzing data related to land value and the cattle business. Enrolled in the University of Florida in 1955 and was appointed Research Assistant, working on own dissertation in regard to a marketing study of Florida ferns. At Georgia Tech, has dealt mainly with feasibility studies on various industries which show potential as manufacturing opportunities in Georgia.

Current Fields of Interest
Manufacturing feasibility studies.

Major Reports and Publications
7. "Lumber and Wood Products, Furniture and Fixtures" (Studies of Selected Industries in the Southeast River Basins, Section 4), Georgia Tech Report, March 1961
BIOGRAPHICAL SKETCH

DIAMOND, HARVEY—Senior Research Engineer, Industrial Development Division, Engineering Experiment Station

Education

St. Johns University 1941-1942
B.S. in Textile Engineering, North Carolina State College 1942-1946

Employment History

Cohn-Hall-Marx, Converter and Assistant Designer 1946-1947
American Woolen Company, Designer and Assistant Buyer 1947-1950
Dux Mixture Hardware Company, Partner 1950-1960
Georgia Institute of Technology
  Assistant Research Engineer 1960-1965
  Research Engineer 1965-1967
  Senior Research Engineer 1967-Present

Experience Summary: Economic feasibility studies; plant location analyses; market research to identify manufacturing and nonmanufacturing business opportunities; raw materials and intermediate products availability studies; liaison with prospects on industrial location possibilities; evaluation and development of area resources; transportation studies; management and technical assistance to prospective and established business; product diversification studies; manpower resources; industrial economic analyses; purchasing and marketing of hardware, wholesale and retail; textile designing; textile converting. Coeditor of monthly metalworking bulletin.

Current Fields of Interest

Market analyses; plant location criteria; economic feasibility analyses.

Major Reports and Publications

Major Reports and Publications (continued)

12. "Mobile Homes in Georgia: A Study of the Personal Property Taxes Levied on Mobile Homes in the Metropolitan Areas of Georgia and the Significance of the Mobile Home Industry to the State," Georgia Tech Report, February 1965, coauthor


Georgia Institute of Technology

BIOGRAPHICAL SKETCH

Nelson, Edward A., Jr. -- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Electronics Technology, Hampton Institute 1968
Certificate in Business Administration, Rochambeau School 1969
MBA in Management, Atlanta University 1972-1974

Employment History

Green Giant Company, Supervisor 1965-1966
International Business Machines, Technician 1967
International Business Machines, Electrical Engineer 1968-1972
Federated Credit Corporation, Collector 1972
Georgia Institute of Technology
Assistant Research Scientist 1972-1974
Research Scientist 1974-Present

Experience Summary: Employed by Green Giant Company as a supervisor for two summers. Responsible for incoming scheduling and production control of raw goods. Supervised approximately 31 employees in handling heavy production equipment. While a student at Hampton, employed by IBM on the cooperative work-study program as an electronics technician. Responsibilities included the construction of electrical test sites, and the designing and testing of vendor semi-conductors. After graduation, employed by IBM as a Junior Electrical Engineer in Failure Analysis Engineering. Responsible for the analysis of test site and machine failures for IBM computers. Promoted to Associate Electrical Engineer in Thermal Analysis Engineering, where responsibilities included the analysis of heat transfer and dissipation in integrated circuitry. Designed and implemented test plans for Advance Packaging Technology. While attending Atlanta University, was employed by Federated Credit Corporation as a collector for delinquent accounts. Presently employed by Georgia Tech as a Research Scientist. Responsibility includes management and technical assistance to small businesses and industry, performing feasibility studies, analysis of management systems, analysis of organizational structures and assistance in financial management.

Current Fields of Interest

All aspects of economic development. This includes minority business development, industrial and community development, and the analysis of management systems.
PARETS, CASTON A. -- Research Engineer, Management and Technical Assistance, Industrial Services Branch, Engineering Experiment Station

Education
Master of Business Administration, with emphasis in Economics, Finance and International Business and Trade. Georgia State University. 1968
Additional courses and seminars in Business, Management and Industrial Development. 1969-1970
Fluent in the Spanish and Portuguese languages.

Employment History
Johnson Controls, Inc., Coral Gables, Florida
Assistant Engineer and Technical Draftsman 1964-1966
Ford Motor Company, Automotive Assembly Division, Hapeville, Georgia
Process Engineer 1966-1967
Manufacturing Engineer "A" 1968-1970
Georgia Institute of Technology, Industrial Development Division, Engineering Experiment Station
International Branch 1970-1972
Industrial Services Branch 1972-Present
East-West Center, University of Hawaii, Honolulu, Hawaii
Research Fellow June-October 1972

Experience Summary: Has been associated with Georgia Tech since January of 1970. During the first three years, activities consisted in the preparation, implementation and follow-up of industrial development projects in Latin America, including the preparation of project proposals for presentation to private and public, national and international organizations. Activities in the international development field included three months of technical assistance to the Industrial Development Office of the University of Carabobo in Valencia, Venezuela, direct involvement in the U.S. AID-sponsored industrial development program of the Republic of Paraguay, and assistance to the Development and Productivity Center, a private consulting group, also in Paraguay. A result of these programs was the generation of a series of studies such as feasibility studies, community industrial profiles, training manuals, and other specialized studies. Another responsibility within the international area was participation in the preparation and conduct of a series of 12-week international development seminars, which are attended by Latin American professional developers and government officials.
BIOGRAPHICAL SKETCH

WOMMACK, CHARLES C.—Assistant Research Scientist, Industrial Development Division, Engineering Experiment Station

Education
B.S.I.M., Georgia Institute of Technology 1963

Employment History
A. O. White, Jr., Engineer, Draftsman 1960 (summer)
Daniel, Manning, Johnson and Mendenhall, Land Surveying 1961 (summer)
Great Books Inc., Salesman 1962 (summer)
Georgia Power Company, Merchandise Sales Representative 1963–1964
U. S. Army, Battalion Supply Officer (S-4) 1964–1966
Atlantic Company, Branch Manager (ice) 1966–1967
Georgia Institute of Technology Assistant Research Scientist 1967–Present

Experience Summary: Duties as a battalion supply officer included administering and supervising the unit motor pool and requisitioning all types of supplies for the support of the unit mission. Duties as Branch Manager with Atlantic Company included the day-to-day operation of an ice manufacturing plant, recruiting and training personnel, supervision of equipment and vehicle maintenance, sales promotion, customer relations, budgeting and cost control. Initial work at Georgia Tech was in connection with an economic development project in the Atlanta Model Neighborhood area which had as its objectives the identification of economic development potentials in the area, the identification of ways to exploit these development potentials, and the reporting of the results of research findings to the City of Atlanta. Recent work has included participation in an economic development program in Valencia, Venezuela, which included identification and evaluation of new manufacturing opportunities and the establishment of a program of management and technical assistance to small and medium-size businesses in Venezuela.

Current Fields of Interest
All areas of economic development, especially those dealing with the economic problems connected with urban and rural poverty; upgrading productivity and Latin American economic development.

Major Reports and Publications
4. "Economic Impact of the Proposed Vocationa-Industrial Training Center to be Located in Monroe, Walton County, Georgia," Special EDA Report, March 1969, coauthor
CHIEF
INDUSTRIAL DEVELOPMENT
DIVISION

ASSOCIATE
DIVISION CHIEF

REPORT PROCESSING
GRAPHIC ILLUSTRATION SERVICES

BASIC DATA

INDUSTRIAL SERVICES

SPECIAL PROJECTS

COMMUNITY
DEVELOPMENT

AREA
DEVELOPMENT

INTERNATIONAL
DEVELOPMENT

MANAGEMENT & TECHNICAL
ASSISTANCE
MARKET ANALYSIS
EDA SERVICES
MINORITY BUSINESS DEVELOPMENT

ECONOMIC DEVELOPMENT TRAINING
URBAN DEVELOPMENT SERVICES

MANPOWER RESOURCES
INDUSTRIAL ECONOMICS
HOUSING RESOURCES

STS FIELD SERVICES
AUGUSTA AREA BRANCH
CENTRAL GEORGIA BRANCH
NORTHWEST GEORGIA BRANCH
SAVANNAH AREA BRANCH
SOUTHEAST GEORGIA BRANCH
WEST GEORGIA BRANCH
SOUTHWEST GEORGIA BRANCH

INTERNATIONAL TRAINING
INTERNATIONAL OPERATIONS
BIOGRAPHICAL SKETCHES

EXHIBIT 3
WARD, WILLIAM C., JR.--Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1940
Command and General Staff College, Fort Leavenworth 1953
Senior Course, Marine Corps Schools 1956
Management School, Fort Belvoir 1961

Employment History

Southern Mercerizing Company, Supervisor 1932-1939
China Grove Cotton Mills, Foreman 1940
U.S. Marine Corps, Colonel 1940-1964
Dean Foods Company, General Manager 1964-1966
Georgia Institute of Technology
Research Scientist 1966-1971
Senior Research Scientist 1971-Present
Head, EDA Services Section, IDD, EES 1967-1970
Head, Applied Technology Group, IDD, EES 1970-1971
Head, Special Projects Branch, IDD, EES 1971-1972
Head, Industrial Services Branch, IDD, EES 1972-Present

Experience Summary: At Southern Mercerizing Company, performed at the supervisory level in mercerizing, skeining, coning, quilling, and shipping departments. At China Grove Cotton Mills, performed as foreman of carding department. In U.S. Marine Corps performed in various command and staff positions including: Chief of Staff, Third Marine Division -- supervised and coordinated entire general and special staff. Comptroller, Marine Corps Base -- staff responsibility for financial management, including accounting, budgeting, disbursing, data processing and financial administrative organization. Chief, Atomic Biological, and Chemical Section, Educational Center, Marine Corps Schools -- responsible for supervising and participating in instruction in Marine Corps Schools, Basic, Junior and Senior Courses. Industrial Relations Officer -- responsible for civilian personnel program including employment, employee relations, training, safety, payroll, and wage and classification divisions. As general manager of Dean Foods Company, managed and supervised management controls, purchasing, traffic, production and quality controls, personnel and all administrative functions. At Georgia Tech, directed IDD's overall operations in EDA matters; provided management and technical assistance to industry as required. Directed IDD's overall operations in Housing Resources matters and overall activities of Special Projects Branch. Presently directs the activities of Industrial Services Branch.

Current Fields of Interest

All aspects of management and technical assistance to industry.

Major Reports and Publications

Major Reports and Publications (continued)

9. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, March 1968, coauthor
11. "Economic Impact of Proposed Water and Sewerage System Improvements on Roberta, Georgia," EDA Special Report, April 1968, coauthor
12. "Impact of Proposed Sewer Improvements on the City of Waycross and Ware County," EDA Special Report, April 1968, coauthor
Major Reports and Publications

With the Industrial Services Branch, responsibilities consist in the provision of management and technical assistance to small and medium size industries in Georgia and other southeastern states. During the period June-October 1972, was invited by the East-West Center at the University of Hawaii, to become part of a five-man study team which conducted a study on the economy, research institutions, and private industry in Indonesia in an effort to determine the feasibility of the establishment of an Industrial Technology Center in that country. This project required extensive travel in Indonesia and other Southeast Asian countries, and the results were formally presented in an International Conference on Adaptive Technologies at Honolulu, Hawaii, October 4, 5, and 6, 1972. While associated with Ford Motor Company, from July 1966 to January 1970, the prime responsibility was to ascertain that vehicles were assembled in the specified manner, and to supervise the building and installation of tools and equipment required for this purpose. This function required close coordination with such groups as Quality Control, Industrial Engineering, Plant Engineering and others. During the period from January 1964 to June 1966, worked with Johnson Controls, Inc., as a technical draftsman and assisted project engineers in projects related with the design and installation of heating and refrigeration automatic control systems.

Major Reports and Publications

3. "Industrial Profile of the City of San Felipe, Venezuela," University of Carabobo, Venezuela, 1971
4. "Pilot Study on the Generation and Diffusion of Adaptive Technology in Indonesia," Technology and Development Institute, East-West Center, Honolulu, Hawaii, October 1972, co-author
6. Market and feasibility studies in various industries, both in the United States and in Latin America.
Georgia Institute of Technology

BIOGRAPHICAL SKETCH

POTTS, PHILLIP W.--Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1962
M.B.A. in Marketing, Georgia State University 1968

Employment History

U. S. Army 1955-1958
Georgia Institute of Technology, Student 1958-1962
General Motors, Accountant 1962-1964
St. Regis Paper Company, Production Department Head, Sales Coordinator, Production Coordinator 1964-1972
Georgia Institute of Technology Research Scientist 1972-Present

Experience Summary: Served three years in U. S. Army Intelligence, traveling extensively throughout Europe. Employed by General Motors in accounting functions of payrolls, accounts payables, accounts receivables, and standard costing. Held various positions with St. Regis Paper Company from production department head to sales coordinator and production coordinator, being responsible for supervision of several hundred production personnel, quality control, production scheduling, inventory control, shipping and receiving efficiency, purchasing, customer service, and implementation of systems for changing production and financial records from manual calculation to EDP.

Current Fields of Interest

All aspects of industrial management, including market analysis, economic feasibility studies, and research in industrial development.

Major Reports and Publications

5. "An Examination of the Existing Commercial Market for Urethane Foam Structural Panels in the Southeast," Georgia Tech Report, July 1973, coauthor and project director
Major Reports and Publications (continued)

WOMMACK, CHARLES C.--Assistant Research Scientist, Industrial Development Division, Engineering Experiment Station

Education
B.S.I.M., Georgia Institute of Technology 1963

Employment History
A. O. White, Jr., Engineer, Draftsman 1960 (summer)
Daniel, Manning, Johnson and Mendenhall, Land Surveying 1961 (summer)
Great Books Inc., Salesman 1962 (summer)
Georgia Power Company, Merchandise Sales Representative 1963-1964
U. S. Army, Battalion Supply Officer (S-4) 1964-1966
Atlantic Company, Branch Manager (ice) 1966-1967
Georgia Institute of Technology Assistant Research Scientist 1967-Present

Experience Summary: Duties as a battalion supply officer included administering and supervising the unit motor pool and requisitioning all types of supplies for the support of the unit mission. Duties as Branch Manager with Atlantic Company included the day-to-day operation of an ice manufacturing plant, recruiting and training personnel, supervision of equipment and vehicle maintenance, sales promotion, customer relations, budgeting and cost control. Initial work at Georgia Tech was in connection with an economic development project in the Atlanta Model Neighborhood area which had as its objectives the identification of economic development potentials in the area, the identification of ways to exploit these development potentials, and the reporting of the results of research findings to the City of Atlanta. Recent work has included participation in an economic development program in Valencia, Venezuela, which included identification and evaluation of new manufacturing opportunities and the establishment of a program of management and technical assistance to small and medium-size businesses in Venezuela.

Current Fields of Interest
All areas of economic development, especially those dealing with the economic problems connected with urban and rural poverty; upgrading productivity and Latin American economic development.

Major Reports and Publications
4. "Economic Impact of the Proposed Vocational-Industrial Training Center to be Located in Monroe, Walton County, Georgia," Special EDA Report, March 1969, coauthor
Major Reports and Publications (continued)

10. "La Fabricación de Aisladores de Porcelana en Venezuela," Report of the University of Carabobo (in Spanish), 1971, coauthor
CHART 2

This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 27th day of June 1972.
### CHART 3

**REGIONAL ECONOMIC DEVELOPMENT CENTER ACTIVITY REPORT**  
July 1, 1974 to September 30, 1974

<table>
<thead>
<tr>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Venture</th>
<th>Community Development</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Previous</strong></td>
<td><strong>Current</strong></td>
<td><strong>Previous</strong></td>
<td><strong>Current</strong></td>
<td></td>
</tr>
<tr>
<td>ONGOING (BEGINNING)</td>
<td>5</td>
<td>5</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>NEW</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DISCONTINUED</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>ONGOING (ENDING)</td>
<td>5</td>
<td>7</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL ACTIVE DURING QUARTER</strong></td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>17</td>
</tr>
</tbody>
</table>

**Percentage of Effort as measured by Cost***

<table>
<thead>
<tr>
<th></th>
<th>This Period</th>
<th>Previous Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Stabilization</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>Business Expansion</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>New Venture</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>Community Development</td>
<td>20</td>
<td>23</td>
</tr>
</tbody>
</table>

*Cost is interpreted to mean Budget Cost for Period of Reporting.*
### CHART 4

**SUMMARY OF PROJECT ACTIVITY BY TYPE AND SUBREGION**

<table>
<thead>
<tr>
<th>Subregion</th>
<th>New Venture</th>
<th>Business Expansion</th>
<th>Business Stabilization</th>
<th>Community Development</th>
<th>Current Costs % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTRAL SAVANNAH RIVER EDD</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>COASTAL PLAIN EDD</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>GEORGIA MOUNTAINS EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>HEART OF GEORGIA EDD</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>NORTHEAST GEORGIA EDD</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>OCONEE AREA EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SLASH PINE EDD</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>SOUTHWEST GEORGIA EDD</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>MIDDLE FLINT EDD</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>CHATTAHOOCHEE-FLINT EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>COASTAL AREA EDD</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>LOWER CHATTAHOOCHEE EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>PROJECTS OUTSIDE EDD'S</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>17</td>
<td>12</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>
# Chart 5

## Job Impact Summary

<table>
<thead>
<tr>
<th>Area</th>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Venture</th>
<th>Community Econ. Develop.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
</tr>
<tr>
<td>Central Savannah River EDD</td>
<td>Not Estb.</td>
<td>0</td>
<td>Not Estb.</td>
<td>0</td>
<td>Not Estb.</td>
</tr>
<tr>
<td>Coastal Plain EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Georgia Mountains EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Heart of Georgia EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Northeast Georgia EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Oconee Area EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Slush Pine EDD</td>
<td>&quot;</td>
<td>75</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Southwest Georgia EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Middle Flint EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Chattahoochee-Flint EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Coastal Area EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Lower Chattahoochee EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Projects Outside Edd's</td>
<td>&quot;</td>
<td>30</td>
<td>&quot;</td>
<td>47</td>
<td>&quot;</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>47</td>
<td>74</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
1. ALTAMAHA - GEORGIA SOUTHERN
2. ATLANTA METROPOLITAN
3. CENTRAL SAVANNAH RIVER
4. CHATTAHOOCHEE-FLINT
5. COASTAL
6. COASTAL PLAIN
7. COOSA VALLEY
8. GEORGIA MOUNTAINS
9. HEART OF GEORGIA
10. LOWER CHATTAHOOCHEE
11. MCINTOSH TRAIL
12. MIDDLE FLINT
13. MIDDLE GEORGIA
14. NORTH GEORGIA
15. NORTHEAST GEORGIA
16. OCONEE
17. SLASH PINE
18. SOUTHWEST GEORGIA
Map 2

ECONOMIC DEVELOPMENT DISTRICTS

1. Georgia Mountains EDD
2. Northeast Georgia EDD
3. Central Savannah River EDD
4. Oconee EDD
5. Heart of Georgia EDD
6. Coastal Plain EDD
7. Slash Pine EDD
8. Coastal EDD
9. Southwest Georgia EDD
10. Middle Flint EDD
11. Chattahoochee-Flint EDD
12. Lower Chattahoochee EDD

Approved County
Map 3
EDA Counties and EDD's as of 1 January 1974

LEGEND:

- OPEN PROJECTS
- ELIGIBLE COUNTY
- ECONOMIC DEVELOPMENT CENTER
A PROGRAM OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED COUNTIES IN GEORGIA

by
William C. Ward, Jr.
Hardy S. Taylor
Charles C. Wommack

INDUSTRIAL DEVELOPMENT DIVISION

Quarterly Report
October, November, and December

1974

Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
Atlanta, Georgia
A PROGRAM
OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED EDA COUNTIES IN GEORGIA

Quarterly Report
October, November, December
by
William C. Ward, Jr.
Senior Research Scientist

Hardy S. Taylor
Senior Research Scientist

Charles C. Wommack
Research Scientist

This technical assistance program was accomplished by professional consultants 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.

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology
January 1975
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. BACKGROUND INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td>A. Economic Characteristics of Service Area</td>
<td>1</td>
</tr>
<tr>
<td>B. Organization and Establishment of Center</td>
<td>1</td>
</tr>
<tr>
<td><strong>II. PROGRAM ADMINISTRATION</strong></td>
<td>1</td>
</tr>
<tr>
<td>A. Program Objectives</td>
<td>1</td>
</tr>
<tr>
<td>B. Technical Assistance Service</td>
<td>1</td>
</tr>
<tr>
<td>C. Project Personnel</td>
<td>1</td>
</tr>
<tr>
<td>D. Phasing of Work Program</td>
<td>1</td>
</tr>
<tr>
<td>E. Relationship to Other Development Efforts</td>
<td>1</td>
</tr>
<tr>
<td><strong>III. STRATEGY FOR SUBREGIONS</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>IV. TECHNICAL ASSISTANCE PROJECTS</strong></td>
<td>2</td>
</tr>
<tr>
<td>A. Location</td>
<td>2</td>
</tr>
<tr>
<td>B. Highlights of Project Activity</td>
<td>2</td>
</tr>
<tr>
<td>C. Project Summaries</td>
<td>3</td>
</tr>
<tr>
<td>Central Savannah River Economic Development District</td>
<td>4</td>
</tr>
<tr>
<td>Coastal Plain Economic Development District</td>
<td>5</td>
</tr>
<tr>
<td>Georgia Mountains Economic Development District</td>
<td>6</td>
</tr>
<tr>
<td>Heart of Georgia Economic Development District</td>
<td>8</td>
</tr>
<tr>
<td>Northeast Georgia Economic Development District</td>
<td>9</td>
</tr>
<tr>
<td>Oconee Area Economic Development District</td>
<td>11</td>
</tr>
<tr>
<td>Slash Pine Area Economic Development District</td>
<td>12</td>
</tr>
<tr>
<td>Southwest Georgia Economic Development District</td>
<td>14</td>
</tr>
<tr>
<td>Middle Flint Economic Development District</td>
<td>16</td>
</tr>
<tr>
<td>Chattahoochee-Flint Economic Development District</td>
<td>18</td>
</tr>
<tr>
<td>Coastal Area Economic Development District</td>
<td>19</td>
</tr>
<tr>
<td>Lower Chattahoochee Economic Development District</td>
<td>20</td>
</tr>
<tr>
<td>Projects Outside of Economic Development Districts</td>
<td>21</td>
</tr>
<tr>
<td><strong>V. EVALUATION OF PROGRAM EFFORT</strong></td>
<td>26</td>
</tr>
<tr>
<td><strong>EXHIBITS</strong></td>
<td></td>
</tr>
<tr>
<td>1. Organization Chart - Georgia Institute of Technology</td>
<td>28</td>
</tr>
<tr>
<td>2. Organization Chart - Industrial Development Division</td>
<td>29</td>
</tr>
<tr>
<td>3. Biographical Sketches</td>
<td>30</td>
</tr>
</tbody>
</table>
CHARTS

1. Economic Characteristics of EDA - Designated Counties - Georgia (Reported only in the first quarterly and final reports)  
2. Waived  
3. Regional Economic Development Center Activity Report  
4. Summary of Project Activity by Type and Subregion  
5. Job Impact Summary

MAPS

1. Area of Field Office Responsibility  
2. Economic Development Districts  
3. EDA Counties and EDD's as of 1 January 1974
I. Background Information

A. Economic Characteristics of Service Area
   To be reported only in the first quarterly progress report and the final report.

B. Organization and Establishment of Center
   To be reported only in the first quarterly progress report and the final report.

II. Program Administration

A. Program Objectives
   To be reported only in the first quarterly progress report and the final report.

B. Technical Assistance Services
   To be reported only in the first quarterly progress report and the final report.

C. Project Personnel
   To be reported only in the first quarterly progress report and the final report.

D. Phasing of Work Program
   This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 27th day of June 1972.

E. Relationship to Other Development Efforts
   In furthering the EDA objectives in Georgia, the Industrial Development Division works closely with representatives of the following organizations:
   Georgia State Office of Planning and Budget - Georgia Department of Community Development - Economic Development Districts - Area Planning and Development Commissions - Chambers of Commerce - local Industrial Development groups - Coastal Plains Regional Commission - Small Business Administration - EDA Economic Development Representatives.

   Particular attention is directed to working with the EDD's and APDC's on individual projects. When an assistance project is opened these organizations are notified that IDD will be working in their area and a monthly progress report of activity on projects within their area is furnished.

   Cooperation with the above mentioned organizations is enhanced by IDD activities other than EDA within the state wherein IDD personnel are in almost constant contact with these groups.
III. Strategy for Subregions

To be reported only in the first quarterly progress report and the final report.

IV. Technical Assistance Projects

A. Location

Map 3 identifies the counties in which work was performed under the program and indicates the number of projects conducted in each county.

B. Highlights of Project Activity

Chart 3 summarizes the highlights of project activity by major program categories. Chart 4 summarizes the project activity by type and subregion to indicate the distribution of effort throughout the state. Chart 5 summarizes the project activity by type and subregion to indicate the job impact.

The following projects were selected for special mention:

Project 659: This metal products manufacturer requested assistance in improving plant production efficiency in order to meet an increasing demand for its products. In an effort to improve production efficiency, IDD developed a plant layout for the existing plant building and met with company management to review and explain the new layout. Company management accepted the proposed layout and began the preliminary steps to implement it. It was later decided that rather than improve its existing plant, the company should build a new building and abandon the existing plant. IDD continued to assist the company in setting up its new plant which is now completed and is in full operation.

Project 684: Due to expanded sales and the addition of a new product line, this agricultural equipment manufacturer had outgrown its present facility. IDD assistance was requested in planning an expansion of the existing plant and in developing a plant layout for the expanded plant in order to achieve an efficient work flow. Information needed for the development of expansion plans and plant layout design was requested from company officials. In connection with this plant layout work, IDD collected and provided to this company information on paint drying booths and inventory and production control systems. This firm's operation has now stabilized after experiencing production expansion. This expansion amounted to 10,000 square feet of increased production area and 10,000 square feet of warehouse area. Employment has increased to approximately 85 production workers.

Project 697: An individual interested in establishing a new venture in machinery repair and tool and die manufacturing requested IDD assistance in securing financing for such a venture. Work was initiated in the preparation of an SBA loan application including the preparation of market information and pro forma financial statements. SBA reviewed
this application and requested additional information. The revised application was resubmitted to SBA. This loan application has now been approved by SBA and the principals have received $22,500 to establish their new business. The owner reports that business is good and no further assistance is needed.

C. Project Summaries

The 37 individual projects which were active during the quarter under the project of Management and Technical Assistance to businesses, industrial firms, and communities in designated Georgia counties are listed by Economic Development Districts and described on the following pages. These summary descriptions include an identification of the work performed and a statement of the results achieved. The 22 projects which were still active as of December 31, 1974 are listed under "On-going Projects" in each EDD.
CENTRAL SAVANNAH RIVER ECONOMIC DEVELOPMENT DISTRICT

General

The Central Savannah River Economic Development District consists of thirteen counties, of which ten are eligible Redevelopment Area counties: Burke, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, Screven, Taliaferro, Warren, and Wilkes. The Growth Centers are Augusta (Richmond County) and Swainsboro (Emanuel County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

During the quarter two projects were discontinued in this area.

Project 659: Assistance to a metal products manufacturer in Jefferson County

Nature of Problem: This firm which began operation one year ago has requested assistance in improving plant production efficiency in order to meet an increasing demand for its products.

Work Performed: In an effort to improve production efficiency, IDD developed a plant layout for the existing plant building and met with company management to review and explain the new layout. Company management accepted the proposed layout and began the preliminary steps to implement it.

Results: This firm decided that rather than improve its existing plant, the company should build a new building and abandon the existing plant. IDD continued to assist the company in setting up its new plant which is now completed and is in full operation. No further assistance is needed; the project is closed.

Project 714: Assistance to a modular building manufacturer in Jenkins County

Nature of Problem: This firm requested IDD assistance in developing plant expansion and layout plans for converting its production to modular apartments.

Work Performed: An IDD staff member met with the principal of this firm and discussed the needs of the company and the approach to be taken in the efforts to improve production.

Results: Assistance was rendered in developing a new design for modular apartment units; however, the company abandoned its plans to produce such a product and the project was closed.
General

The Coastal Plain Economic Development District consists of ten counties, of which eight are eligible Redevelopment Area counties: Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, and Turner. The Growth Centers are Valdosta (Lowndes County) and Tifton (Tift County).

New Projects

During the quarter two new projects were established in this area.

Project 724: Assistance to a sporting goods manufacturer in Valdosta, Georgia (Growth Center)

Nature of Problem: This firm has a problem of excessive handling and storage of raw materials and semi-finished products. IDD assistance was requested in reviewing the present plant layout and developing an improved layout to minimize the loss in efficiency resulting from excessive material handling.

Work Performed: An IDD staff member has visited this plant and collected information needed to develop an improved plant layout. During this visit, company management also requested assistance in evaluating the feasibility of producing and marketing Christmas tree stands. Information relative to the marketing of Christmas tree stands is being collected.

Results: The project is continuing.

Project 732: Assistance to a garment manufacturer in Irwin County

Nature of Problem: The general manager of this company requested assistance in developing a system to monitor and control plant production in his multi-plant operation.

Work Performed: In a visit to this company, it was found that due to recent growth in the size of this business, top management has found that their existing production control system is inadequate and needs to be formalized and refined in order to achieve maximum efficiency. Work is under way in assisting company management in this effort to improve production control procedures.

Results: The project is continuing.

Ongoing Projects

There are now the two new projects above under way in this area.

Discontinued Projects

None.
GEORGIA MOUNTAINS ECONOMIC DEVELOPMENT DISTRICT

General

The Georgia Mountains Economic Development District consists of 13 counties, of which six are eligible Redevelopment Area counties: Dawson, Forsyth, Rabun, Towns, Union, and White. The Growth Centers are Gainesville (Hall County) and Toccoa (Stephens County).

New Projects

During the quarter one new project was established in this area.

Project 728: Assistance to a manufacturer of specialized machinery in Gainesville, Georgia (Growth Center)

Nature of Problem: IDD assistance has been requested by the management of this firm in the area of production control, marketing, and finance.

Work Performed: In a meeting with the president and vice president of this company, the IDD staff found that it had been operating for approximately 18 months under the strain of limited working capital, less than optimum financial structure, and little, if any, production control. As a result of this meeting, it was determined that assistance would be concentrated in the areas of production control and marketing in an effort to achieve profitable operations through a reduction of costs and improved efficiency. If a profit can be achieved, the problems of correcting the unbalanced financial structure will be greatly reduced.

Results: The project is continuing.

Ongoing Projects

There are now two projects under way in this area. In addition to the new project above there is:

Project 693: Assistance to an industrial development group in Union County

Nature of Problem: This industrial development group requested IDD assistance in the preparation of a conceptual design plan for an industrial district on a site which the group presently holds.

Work Performed: The IDD staff has conducted a field inspection of the proposed site of the planned industrial district. Before design work could proceed, aerial photography of the site and other data had to be obtained. Work on obtaining the photography and other data is now completed and a proposed design for the industrial district has been prepared for review by this development group.

Results: The project is continuing.
Discontinued Projects

None.
HEART OF GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General

The Heart of Georgia Economic Development District consists of nine counties, of which seven are eligible Redevelopment Area counties: Dodge, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, and Wilcox. The Growth Center is Dublin/East Dublin (Laurens County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There is now one project under way in this area.

Project 687: Assistance to a health care firm in Dodge County

Nature of Problem: This health care firm requested IDD assistance in evaluating the feasibility of diversifying its operation to include the manufacture of fiberglass doors.

Work Performed: The IDD staff has visited this firm and discussed the planned manufacturing operation for producing fiberglass doors. At the suggestion of IDD, it was decided that the first step in evaluating the feasibility of such a venture should be a study of the market for doors. This market study has been completed and delivered to this group for use in planning. Efforts are now under way to secure financing for a facility to manufacture fiberglass doors. Local banks, as well as SBA officials, have been contacted in order to determine the best source of financing for this venture. The principals were assisted in the preparation of an application for an SBA 502 type loan. This application to SBA has been temporarily postponed and an application to a MEBIC for funding of this venture is being pursued instead.

Results: The project is continuing.

Discontinued Projects

None.
NORTHEAST GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General

The Northeast Georgia Economic Development District consists of ten counties, of which five are eligible Redevelopment Area counties: Greene, Madison, Morgan, Oglethorpe, and Walton. The Growth Center is Athens (Clarke County).

New Projects

During the quarter one new project was established in this area.

Project 726: Assistance to a sawmill in Madison County

Nature of Problem: This company has recently completed a new $1 million facility in Madison County and has requested IDD assistance in evaluating the feasibility of a $5 million expansion.

Work Performed: In initial contacts with company management, it was found that preliminary investigations were under way within the company staff, and, at their request, IDD assistance was postponed until January. Plans are to recontact the company at that time.

Results: The project is continuing.

Ongoing Projects

There is now the one new project above under way in this area.

Discontinued Projects

During the quarter two projects were discontinued.

Project 715: Assistance to an industrial development group in Madison County

Nature of Problem: This industrial development group requested IDD assistance through the Economic Development Coordinator of the Northeast Georgia APDC in determining what needs to be done in order to attract industry to its industrial park at Comer, Georgia.

Work Performed: The IDD staff met with representatives of this development group and visited the industrial park at Comer in an effort to determine the problem areas that have prevented any industry from locating in the park. Several changes have been suggested to the development group which will improve the physical attractiveness of the park.

Results: A letter report to this development group was prepared by the IDD staff which set forth the findings and recommendations for improvement. A follow-up visit was made to discuss this report with the group. No further assistance is needed; the project is closed.
Nature of Problem: The engineering manager of this firm requested IDD help with a packaging problem created by an increase in business which has forced the use of commercial freight lines and resulted in a large increase of damaged products.

Work Performed: An IDD staff member visited this plant to review the packaging problem with the engineering staff. Several promising methods of resolving this packaging problem are being considered, and the IDD staff is continuing to provide information on these various methods.

Results: This company has now selected one of the suggested methods of resolving its packaging problem and has implemented the change with good results. No further assistance is needed; the project is closed.
General

The Oconee Area Economic Development District consists of seven counties, of which three are eligible Redevelopment Area counties: Hancock, Jasper, and Washington. The Growth Center is Milledgeville (Baldwin County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

None.
General

The Slash Pine Area Economic Development District consists of eight counties of which six are eligible Redevelopment Area counties: Atkinson, Bacon, Brantley, Clinch, Coffee, and Pierce. The Growth Center is Waycross (Ware County).

New Projects

During the quarter one new project was established in this area.

Project 731: Assistance to an individual in Coffee County

Nature of Problem: This individual contacted the IDD office in Douglas, Georgia, and requested assistance in compiling statistical data necessary to evaluate the feasibility of establishing a shopping center in Douglas, Georgia.

Work Performed: Information on retail sales, demographic characteristics of the area, employment data, income data and banking data on a multi-county trade area surrounding Douglas is being assembled from published sources by the IDD staff and will be supplied to this individual for his use in evaluating the feasibility of his plans.

Results: The project is continuing.

Ongoing Projects

There are now two projects under way in this area. In addition to the new project above there is:

Project 722: Assistance to an egg processing company in Coffee County

Nature of Problem: This company requested IDD assistance in resolving a materials handling problem in their plant which, if resolved, would reduce breakage of eggs.

Work Performed: In a visit to the plant, an IDD staff member found two materials handling methods in use, neither of which is entirely satisfactory. These two methods (rack, carton) are currently being studied to determine which is the more efficient method. Data are also being gathered on industry practices regarding this specific materials handling problem.

Results: The project is continuing.

Discontinued Projects

During the quarter three projects were discontinued in this area.
Project 708: Assistance to a new venture in corrugated box manufacturing in Clinch County

Nature of Problem: A group of individuals planning to establish a plant in the Homerville industrial park for the production of corrugated containers has requested IDD assistance in equipment selection, identification of potential suppliers of equipment, market study, and identification of sources of financing. Initial employment is projected to be 50.

Work Performed: A market study on corrugated box requirements in southern Georgia and northern Florida has been prepared and will be reviewed with company management.

Results: Due to currently unfavorable business conditions and high interest rates the principals of this new venture have indefinitely postponed their plans. No further assistance is needed; the project is closed.

Project 709: Assistance to a sawmill in Clinch County

Nature of Problem: The owner of this sawmill and planing mill requested IDD assistance in reviewing their general plant safety conditions.

Work Performed: Upon visiting this firm it was found that it had been cited by OSHA for a number of safety violations. Efforts were immediately undertaken to develop recommendations for corrective measures, and arrangements were made for an EES staff member to perform noise level tests throughout the plant.

Results: The results of these tests and recommendations have been presented to company management in a written report and discussed in a meeting with management. No further assistance is needed; the project is closed.

Project 713: Assistance to an individual interested in establishing a warehouse in Waycross, Georgia (Growth Center)

Nature of Problem: An individual requested IDD assistance in evaluating the market demand for warehousing in the Ware County area.

Work Performed: A survey of the need for a warehousing facility in the Ware County area was conducted by the IDD staff.

Results: This survey was summarized in a report to this individual, and since the findings were unfavorable, the plans to establish such a venture have been abandoned.
SOUTHWEST GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General

The Southwest Georgia Economic Development District consists of 13 counties, of which nine are eligible Redevelopment Area counties: Baker, Calhoun, Grady, Lee, Miller, Mitchell, Seminole, Terrell, and Worth. The Growth Centers are Albany (Dougherty County) and Bainbridge (Decatur County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now two projects under way in this area.

Project 700: Assistance to a wood products manufacturer in Albany, Georgia (Growth Center)

Nature of Problem: This firm now manufactures roof trusses for the mobile home industry and wooden mattress frames for mattress manufacturers. IDD assistance has been requested in investigating the feasibility of further diversification into wood pallet manufacturing.

Work Performed: A market survey of the market for pallets within 150 miles of Albany, Georgia, has been conducted and summarized in a report to this company. Information has also been supplied on pallet designs used by various industries and typical prices and volume purchasing arrangements commonly used. Based on the information provided by IDD, this firm decided to begin producing wooden pallets as soon as equipment could be obtained. Limited production of wooden pallets is now under way and is gradually developing into a stable product line.

Results: The project is continuing.

Project 706: Assistance to an individual interested in developing a new food store concept in Albany, Georgia (Growth Center)

Nature of Problem: This individual has requested IDD assistance in planning a production facility similar to a mobile home manufacturing operation. He has developed and built a prototype of a relocatable food service store and plans to begin producing a similar unit as soon as financing can be arranged for a new plant.

Work Performed: Arrangements have been made for this individual to visit several mobile home manufacturing plants in the Albany area. He has also been put in contact with the owners of a closed mobile home manufacturing plant since he may possibly be interested in buying this facility. Assistance is also being rendered in preparing the information needed for an SBA 502 loan application.

-14-
Results: The project is continuing.

Discontinued Projects

During the quarter one project was discontinued in this area.

**Project 694: Assistance to an agricultural equipment manufacturer in Decatur County**

**Nature of Problem:** Due to expanded sales and the addition of a new product line, this firm has outgrown its present manufacturing facility. IDD assistance was requested in planning an expansion of the existing plant and in developing a plant layout for the expanded plant in order to achieve an efficient work flow.

**Work Performed:** Information needed for the development of expansion plans and plant layout design was requested from company officials. In connection with this plant layout work, IDD collected and provided to this company information on paint drying booths and inventory and production control systems. Construction is now completed on an expansion of 20,000 square feet to the existing plant building.

**Results:** This firm's operation has now stabilized after experiencing production expansion. This expansion amounted to 10,000 square feet of increased production area and 10,000 square feet of warehouse area. Employment has increased to approximately 85 production workers. No further expansion is anticipated in 1975. No further work is anticipated in the near future; the project is closed.
General

The Middle Flint Economic Development District consists of eight counties, of which six are eligible Redevelopment Area counties: Dooly, Macon, Marion, Schley, Taylor, and Webster. The Growth Center is Americus (Sumter County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now two projects under way in this area.

Project 676: Assistance to a development group in Dooly County

Nature of Problem: This development group has requested IDD assistance in determining whether to use a 35-acre site in Vienna, Georgia, for commercial or industrial use.

Work Performed: A visit was made to the site by two IDD staff members, and information on the site was collected during this visit. A report detailing the advantages and disadvantages to industrial versus commercial development of the site has been prepared and forwarded to the development group. This development group has now decided on commercial development of the site, and efforts have begun in developing a comprehensive land use plan for this site.

Results: The project is continuing.

Project 711: Assistance to a municipal government in Crisp County

Nature of Problem: Due to the current ineffectiveness of the industrial development efforts of this community, the new city manager has requested that IDD provide assistance in guiding him toward a more effective industrial development program.

Work Performed: Efforts are now under way in analyzing the present industrial development organizations and in developing recommendations for improvements.

Results: The project is continuing.

Discontinued Projects

During the quarter one project was discontinued in this area.
Project 697: Assistance to an individual interested in establishing a tool and die shop in Webster County

Nature of Problem: An individual interested in establishing a new venture in machinery repair and tool and die manufacturing requested IDD assistance in securing financing for such a venture.

Work Performed: Work was initiated in the preparation of an SBA loan application including the preparation of market information and pro forma financial statements. SBA reviewed this application and requested additional information. The revised application was resubmitted to SBA.

Results: This loan application has now been approved by SBA and the principals have received $22,500 to establish their new business. The owner reports that business is good and no further assistance is needed. The project is closed.
General

The Chattahoochee-Flint Economic Development District consists of nine counties, of which three are eligible Redevelopment Area counties: Heard, Meriwether, and Pike. The Growth Centers are Carrollton (Carroll County) and La Grange (Troup County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

None.
General

The Coastal Area Economic Development District consists of six counties, of which four are eligible Redevelopment Area counties: Bryan, Camden, Long, and McIntosh. The Growth Centers are Brunswick (Glynn County) and Hinesville (Liberty County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There is now one project under way in this area.

Project 719: Assistance to an individual interested in manufacturing beekeeping wooden ware in Brunswick, Georgia (Growth Center)

Nature of Problem: This individual requested IDD assistance in evaluating the feasibility of establishing a manufacturing facility for producing beekeeping wooden ware products.

Work Performed: The IDD staff collected data on the market for beekeeping wooden ware which included a recent market study. This information was sent to this individual and a meeting is planned to discuss this material with him.

Results: The project is continuing.

Discontinued Projects

None.
LOWER CHATTahooCHEE ECONOMIC DEVELOPMENT DISTRICT

General

The Lower Chattahoochee Economic Development District consists of seven counties, of which five are eligible Redevelopment Area counties: Clay, Early, Quitman, Randolph, and Stewart. The Growth Center is Columbus (Muscogee County).

New Projects

During the quarter no new projects were established in this area.

Ongoing Projects

There are now no projects under way in this area.

Discontinued Projects

During the quarter one project was discontinued in this area.

Project 699: Assistance to a development group in Columbus, Georgia (Growth Center)

Nature of Problem: Two individuals interested in building a convention facility in Columbus, Georgia, requested IDD assistance in determining the feasibility of such a project.

Work Performed: A meeting was held with the two principals in order to secure detailed information on the plans for establishing a convention center in Columbus, Georgia. Based on information secured in this meeting, work was begun in collecting data on other convention centers in order to determine the feasibility of the project.

Results: Due to an inability on the part of these individuals to determine a workable way of attracting interest in their proposed convention center, the project has been abandoned. No further assistance is needed; the project is closed.
PROJECTS OUTSIDE OF ECONOMIC DEVELOPMENT DISTRICTS

General

During the quarter fourteen projects were active in counties outside of the Economic Development Districts.

New Projects

During the quarter three new projects were established in this area.

Project 725: Assistance to a furniture manufacturer in Fannin County

Nature of Problem: The plant manager of this company requested IDD assistance in improving the marketing program which is currently being used.

Work Performed: In reviewing the current marketing system of this company, it was found that most of the customers were very small retail furniture stores in small towns. Due to their size, these customers would order in very small quantity -- often one or two units -- and then the shipping and production departments could not be very efficiently operated. The IDD staff assisted in developing a plan to market this company's products to larger customers and thus achieve larger volume orders. A list of large furniture retailers was compiled by the IDD staff and supplied to this firm for use in a direct mail sales campaign.

Results: The project is continuing.

Project 729: Assistance to a plastics fabricator in Polk County

Nature of Problem: The individual who has recently bought this manufacturing facility in Polk County requested IDD assistance in compiling a list of companies in Georgia and the Southeast that use plastic items which can be produced in this plant.

Work Performed: During the first visit to this plant, it was found that only 10% of plant capacity was being utilized due to a lack of sales. The new owner stated that he had not set up any marketing program prior to buying the plant. Information was collected on the capabilities of the equipment, and a list of the past customers was secured. Shortly following this visit, the owner closed the plant temporarily and requested that IDD delay assistance until he reopens the plant.

Results: The project is continuing.

Project 730: Assistance to a municipal government in Jones County

Nature of Problem: The mayor of Gray, Georgia, requested IDD assistance in developing the industrial development efforts of this community.
Work Performed: In meetings with the mayor and other community leaders, several ideas have been suggested for improving the industrial development program of the community. The IDD staff is now analyzing these suggestions and will submit a report on its findings and recommendations for future development efforts.

Results: The project is continuing.

Ongoing Projects

There are now nine projects under way in this area. In addition to the three new projects above there are:

Project 667: Assistance to an industrial development group in Crawford County

Nature of Problem: A newly formed economic development group in Crawford County requested IDD assistance in determining what types of businesses might best fit the resources available in Crawford County.

Work Performed: Meetings have been held with county commissioners and representatives of the local development group in order to define the objectives of the project and to gather information on the area. Efforts are continuing in the collection of information on local resources, and an analysis of the resources as they relate to industrial and economic development has been initiated. An EDA grant of $140,000 has been awarded for the expansion of the Roberta-Crawford County industrial park. Work on this expansion is now under way with the extension of roads and utility lines into the park.

Results: The project is continuing.

Project 689: Assistance to a new venture in charcoal manufacturing in Tattnall County

Nature of Problem: A group of individuals interested in establishing a manufacturing plant in the Reidsville area to convert wood wastes into bulk charcoal and charcoal briquets has requested IDD assistance in determining the feasibility of such a venture.

Work Performed: In meetings with these individuals, it has been determined that the pivotal question to resolve is the availability of sufficient wood residues in the area to support such a venture. All firms in the area which may have wood waste which could be available to this new charcoal manufacturer have been surveyed and the results are being tabulated and included in a report to this group. Based on the favorable results of the survey of wood residue availability, this group is now negotiating a joint venture with an equipment supplier for the purpose of establishing a charcoal manufacturing plant.

Results: The project is continuing.

Project 696: Assistance to a development group in Douglas County

Nature of Problem: This development authority is in the process of acquiring approximately 250 acres of land for an industrial park. IDD
assistance has been requested in designing and planning this industrial district.

**Work Performed:** Work has been initiated in assembling the materials needed to develop a park layout and site flyer. A field inspection of the site has been made and information needs were determined at that time. Efforts are now under way to collect the needed information for planning this industrial park.

**Results:** The project is continuing.

**Project 707: Assistance to an individual in Effingham County**

**Nature of Problem:** This individual is interested in establishing a hot-dip galvanizing operation in Effingham County. IDD assistance has been requested in studying the feasibility of starting such a venture.

**Work Performed:** In cooperation with this individual, IDD is developing information in the following five areas: (1) market potential for hot-dip galvanizing in the surrounding area; (2) capital requirements for a plant and equipment; (3) plant site's requirements; (4) fuel requirements for galvanizing operation; and (5) environmental impact considerations. Based on the favorable preliminary findings in the above areas, the IDD staff is now assisting this individual in preparing material needed to secure financing.

**Results:** The project is continuing.

**Project 712: Assistance to a furniture manufacturer in Henry County**

**Nature of Problem:** The president of this company requested IDD assistance in planning an expansion of the company's production facility.

**Work Performed:** Based on information supplied by IDD and collected from other sources, the company president has decided that, rather than build a new plant facility, his existing plant should be expanded. Work is continuing in the area of identifying sources of financing for this plant expansion.

**Results:** The project is continuing.

**Project 720: Assistance to a garment manufacturer in Paulding County**

**Nature of Problem:** The new plant manager of this operation requested IDD assistance in improving operating efficiency and worker productivity in his efforts to achieve profitable operations after a considerable period of losses.

**Work Performed:** In a visit to this plant, the IDD staff found that serious materials handling problems exist and improvements in plant layout are needed in order to implement more efficient materials handling methods and to improve worker productivity. In a second visit to this plant,
management was supplied with data on sewing plant operations and data were gathered in connection with work on designing an improved plant layout.

Results: The project is continuing.

Discontinued Projects

During the quarter five projects were discontinued in this area.

Project 691: Assistance to an individual interested in brick manufacturing in Fannin County

Nature of Problem: An individual in Fannin County has requested IDD assistance in investigating the feasibility of manufacturing bricks.

Work Performed: A market study on the potential market for bricks in the area surrounding Fannin County has been initiated. Information is also being collected on the availability of a plant site with an adequate supply of clay for brick manufacturing.

Results: Recent efforts to contact this individual have been unsuccessful, and, therefore, it is assumed that he has abandoned this project. No further assistance is needed; the project is closed.

Project 710: Assistance to a box manufacturer in Floyd County

Nature of Problem: The owner of this firm requested IDD assistance in determining the demand for a service company providing job shop packaging and mailing of sample and promotional items in the Southeast.

Work Performed: IDD efforts were directed to developing a list of companies in the Southeast which utilize sample mailouts to advertise their products. This effort resulted in a list of 123 companies which was supplied to company management for use in their efforts to increase sales volume.

Results: This company is now using the list of companies compiled by IDD in its efforts to generate increased sales of boxes. No further assistance is needed; the project is closed.

Project 716: Assistance to a bottling company in Paulding County

Nature of Problem: This company is a small contract bottler and packager. The owner has several long-term contracts pending with reputable firms if he can increase his production. More capital is drastically needed, and he has requested IDD assistance in advising him in determining the most feasible method to obtain the financing.

Work Performed: Work has been undertaken to analyze this company's operating history and financial statements in order to make a determination on the most feasible method of financing the needed expansion.
Results: The long-term contracts which were pending have now been turned down by the potential new customers, and the owner of this plant has decided to indefinitely discontinue operations. No further assistance is needed; the project is closed.

Project 721: Assistance to a construction equipment manufacturer in Gilmer County

Nature of Problem: The president of this company requested IDD assistance in correcting a serious financial problem created by excessive materials inventory.

Work Performed: This company built up its materials inventory in preparation for production under contract to a large customer. The customer defaulted on the purchase contract and has left this company with about $40,000 of unnecessary inventory. IDD efforts were being directed toward finding a use for this inventory which would yield sufficient revenue for the company to correct the serious current financial problem.

Results: The company has now intensified its marketing efforts and has succeeded in reducing its inventory problem. No further assistance is needed; the project is closed.

Project 723: Assistance to a carpet tufting plant in Murray County

Nature of Problem: This company's operation is based on commissioned tufting for large carpet manufacturers. Due to the drop in sales caused by the slump in the housing industry, the large companies no longer need the services of this company. The company management has requested IDD assistance in finding alternative sources of revenue.

Work Performed: A meeting between several IDD staff members and company management was held to explore possible approaches to assisting this company.

Results: Following the meeting with the IDD staff, the company management decided that the best way to survive the sales slump would be to curtail its operations as much as possible in order to achieve break-even operations. No further assistance is needed; the project is closed.
V. Evaluation of Program Effort

In drawing conclusions about the program, it would not be difficult to overstate the impact of the work performed by IDD staff personnel on the individual projects; however, available information indicates some noteworthy results in the area of employment and jobs affected. A total of approximately 189 identifiable jobs have been created or saved in firms assisted by IDD. Approximately 99 identifiable jobs have been created in expanding companies which were assisted.

Conclusions regarding the overall impact of this program must be based upon a collective evaluation of the individual projects and their respective results. This evaluation should include not only a recognition of the fact that a deliberate attempt has been made to state the significance of IDD efforts in realistic terms, but also a consideration of the following special points concerning the results reported:

1. In many cases, the contributions of IDD staff personnel were major factors in management decisions to act or not to act on a specific plan of development. This was particularly true in those cases involving the development of new ventures.

2. In some situations, the end result would have been the same regardless of IDD participation. In such cases, IDD staff personnel helped to facilitate the achievement of an already determined goal.

3. In certain projects, IDD staff personnel filled a negative role by determining that a proposed course of action was not economically sound. The project staff felt that such actions, where they were taken, were in the best interests of all parties in the project. It is not enough to provide support for sound proposals; the unsound ones also must be identified.

Because of the preceding considerations, it is not practical to attempt to quantify results of this type program solely in terms of jobs created. Further, since it was the first program of its kind in a state-supported university, it is impossible to judge its merit on a comparative basis. It is necessary, therefore, to evaluate the program by empirical means. Several observations indicate that the management and technical assistance program to business and industry in Georgia has been beneficial:

1. After a modest start, the program has grown both in quantity of projects and in the comprehensiveness of the assistance offered. The program has been well received throughout Georgia and is being supported by the firms that have been assisted.

2. Consultants of all types have been kept apprised of Georgia Tech's management and technical assistance efforts and have worked in conjunction with IDD to further the program. All parties concerned seem to feel that the program is mutually beneficial.
3. Success of the original program has led to expansion of the project by the U. S. Department of Commerce's Economic Development Administration in Georgia and initiation of comparable programs by agencies in other states.

4. As a result of previous MATA experience, IDD personnel provided counsel to the federal government in an effort to bridge the gap between the accumulated findings of governmental, education, and private research and the information needs of business and industry. This counsel eventually resulted in the passing of the State Technical Services Act of 1965.
BIOGRAPHICAL SKETCHES

EXHIBIT 3
WARD, WILLIAM C., JR.--Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1940
Command and General Staff College, Fort Leavenworth 1953
Senior Course, Marine Corps Schools 1956
Management School, Fort Belvoir 1961

Employment History

Southern Mercerizing Company, Supervisor 1932-1939
China Grove Cotton Mills, Foreman 1940
U.S. Marine Corps, Colonel 1940-1964
Dean Foods Company, General Manager 1964-1966
Georgia Institute of Technology
Research Scientist 1966-1971
Senior Research Scientist 1971-Present
Head, EDA Services Section, IDD, EES 1967-1970
Head, Applied Technology Group, IDD, EES 1970-1971
Head, Special Projects Branch, IDD, EES 1971-1972
Head, Industrial Services Branch, IDD, EES 1972-Present

Experience Summary: At Southern Mercerizing Company, performed at the supervisory level in mercerizing, skeining, coning, quilling, and shipping departments. Night superintendent of entire plant for one summer. At China Grove Cotton Mills, performed as foreman of carding department. In U.S. Marine Corps performed in various command and staff positions including: Chief of Staff, Third Marine Division -- supervised and coordinated entire general and special staff. Comptroller, Marine Corps Base -- staff responsibility for financial management, including accounting, budgeting, disbursing, data processing and financial administrative organization. Chief, Atomic Biological, and Chemical Section, Educational Center, Marine Corps Schools -- responsible for supervising and participating in instruction in Marine Corps Schools, Basic, Junior and Senior Courses. Industrial Relations Officer -- responsible for civilian personnel program including employment, employee relations, training, safety, payroll, and wage and classification divisions. As general manager of Dean Foods Company, managed and supervised management controls, purchasing, traffic, production and quality controls, personnel and all administrative functions. At Georgia Tech, directed IDD's overall operations in EDA matters; provided management and technical assistance to industry as required. Directed IDD's overall operations in Housing Resources matters and overall activities of Special Projects Branch. Presently directs the activities of Industrial Services Branch.

Current Fields of Interest

All aspects of management and technical assistance to industry; alumina from Kaolin.

Major Reports and Publications

Major Reports and Publications (continued)

9. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, March 1968, coauthor
11. "Economic Impact of Proposed Water and Sewerage System Improvements on Roberta, Georgia," EDA Special Report, April 1968, coauthor
12. "Impact of Proposed Sewer Improvements on the City of Waycross and Ware County," EDA Special Report, April 1968, coauthor
TAYLOR, HARDY S.--Assistant Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

University of Alabama, B.S. Business Administration and Pre-Law 1943
Harvard Graduate School of Business Administration 1944
University of Nebraska, Graduate School of Business Organization 1951
Defense Department Comptrollership School, Washington, D. C. 1955

Employment History

National Southern Products, Inc., Tuscaloosa, Alabama, Research Assistant 1943
Turco Products, Inc., Atlanta, Georgia, Representative and Field Engineer 1943-1964
U.S. Navy, Supply and Fiscal Officer/Comptroller 1964-1966
Gladwin Industries, Inc., Atlanta, Georgia, Treasurer (Controller) 1966-1972
Georgia Institute of Technology Research Scientist 1972-Present
Senior Research Scientist 1968-Present
Head, Management and Technical Assistance Section 1970-Present
Head, EDA Services Section 1970-Present
Assistant Head, Industrial Services Branch, IDD, EES 1970-Present

Experience Summary: As the Assistant Head of the Industrial Services Branch, is responsible for directing the overall IDD program of management and technical assistance and EDA services to Georgia industry. Served as treasurer of a locally-based national corporation, primarily a manufacturer for the telephone industry, and was responsible for accounting and financial management, office administration and sales maintenance services, purchasing, customer relations and local sales, personnel administration, print shop operations and sales catalog maintenance. Served as a member of the board of directors of several corporations with national and international sales distribution. In 1964 completed twenty years in U.S. Navy as top departmental executive with experience in all phases of business and financial management with special emphasis on Controllership, which consisted of budgeting and internal auditing; and Supply and Fiscal operations consisting of: accounting and payroll, office administration and personnel management and training, procurement and contract negotiation and administration, inventory management, warehousing, traffic operations, quality control, industrial safety, and property disposal. Assisted in the development of, and in charge of implementation of, a new Inventory Management concept at the Naval Aviation Supply Office, which is the world wide inventory control point for all Naval Aviation spare parts and material. This concept was based on the maximum utilization of the latest Electronic Data Processing equipment and it resulted in the greatest advancement in the management of aviation material during the past several years. Served as Supply and Fiscal Office/Comptroller at several Naval Air Stations and directed a working staff of 75 to 300 civilian personnel. As the first U.S. Naval representative in Sicily, negotiated at the highest governmental levels in Sicily and in Rome in arriving
at agreements and procedural methods for operation of a U.S. Naval Air Station. Additionally, recruited, interviewed, selected and hired the initial group of 100 civilian personnel. Also negotiated and approved contracts for procurement of equipment, supplies and services from European sources to provide complete support for a station population of 1,800 people. Developed the idea and published a catalog in connection with a Simplified Issue Procedure for General Stores Material. This idea has been further developed and is widely used throughout the Naval Supply System.

Current Fields of Interest

All phases of area development activity, including industrial and community development, financial and inventory management, and management development.

Major Reports and Publications

1. Published a catalog in connection with a Simplified Issue Procedure for General Stores Material
2. Author of numerous published company studies; procedural systems manuals; and operational plans
7. "Economic Impact of Proposed Water and Sewerage System Improvements on Warrenton, Georgia," EDA Special Report, September or December 1967
12. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, February 1968
16. "Economic Impact of a Proposed Industrial District to be Located in Richmond County, Georgia," EDA Special Report, May 1968 (coauthor)
Major Reports and Publications (continued)


BETHEA, EDWIN A. -- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S., Knoxville College 1953
M.S.W., Howard University 1962
Certificate of Completion, Howard University's Small Business Guidance Center 1969
Certificate of Completion, CPM and PERT for Project Managers, Continuing Education Department, Georgia Institute of Technology 1974

Employment History

District of Columbia, Department of Public Welfare, Caseworker, Child Welfare Division 1962-1965
Far East Community Services, Inc., Community Organizer-Youth Community Organizer 1965-1966
United Planning Organization, Community Organization Specialist (training officer), Economic Development Specialist 1966-1968
Youth Enterprises, Inc., Executive Director 1968-1970
Consultant Employers
Office of Economic Opportunity; Manpower Assistance Project Inc.; University Research Corp.; Xerox Corporation; Commerce Department, Economic Development Administration 1969-1970
Volunteers for International Technical Assistance, Director-Washington, D.C.; Director-East Central Regional Office 1970-1972
Georgia Institute of Technology Research Scientist 1972-Present

Experience Summary: Directed a regional office for technical assistance that provided services to minority and economically disadvantaged groups in mid-Atlantic region; this entailed establishing, structuring, and supervising new program offices in several states within the region. Program developer for minority economic ventures and community development project; the responsibilities included establishing a working relationship with community groups, federal, state and local government agencies, and/or private agencies whose interests were similar. Organized and managed a minority firm for the purpose of establishing "spin-off" business ventures and the training of minority entrepreneurs. Managed and developed programs aimed toward helping groups initiate and implement economic and social changes in their community such as employment practices, bureaucratic procedures, etc. Assisted quasi-government and government department directors in community planning. Developed and directed programs relating to youth activities in the areas of training, proposal development, community improvement and change and economic developments.

Current Fields of Interest

Minority business development, industrial and community development, manpower management and motivation, transportation and new economic systems.
Major Reports and Publications

Georgia Institute of Technology

BIOGRAPHICAL SKETCH

CHIANG, TZE I. -- Principal Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B. A. in Agricultural Economics, Fukien Christian University 1946
M. S. in Agricultural Economics, Oklahoma State University 1955
Cornell University 1957 (Summer)
Ph.D. in Agricultural Economics, University of Florida 1958

Employment History

Junior high school teacher, Foochow, China 1946-1947
China Textile Industries, Inc. 1947-1953
Oklahoma State University, Graduate Assistant 1954-1955
University of Florida, Research Assistant 1955-1958
Georgia Institute of Technology
Assistant Research Economist 1958-1962
Research Economist 1963-1964
Senior Research Economist 1965-1972
Senior Research Scientist 1973-1974
Principal Research Scientist 1974-present

Experience Summary: Began as a teacher in a junior high school in 1946. Joined the China Textile Industries, Inc., in 1947, and rose gradually to the position of Assistant to the General Manager in 1953. At Oklahoma State University, accepted a graduate assistantship in collecting and analyzing data related to land value and the cattle business. Enrolled in the University of Florida in 1955 and was appointed Research Assistant, working on own dissertation in regard to a marketing study of Florida ferns. At Georgia Tech, has completed 40 research projects concerning market and economic studies. Special interests are in the areas of forest products, agribusiness, and metalworking industries. Many of these studies have led to investment opportunities in Georgia and the Southeast.

Current Fields of Interest

Manufacturing feasibility studies; market analysis; agricultural economic and agribusiness studies; research program related to regional development; international trade and proposal generating.

Major Reports and Publications

7. "Lumber and Wood Products, Furniture and Fixtures" (Studies of Selected Industries in the Southeast River Basins, Section 4), Georgia Tech Report, March 1961
Major Reports and Publications (continued)

11. "Evaluation of Agriculturally Oriented and Wood-Based Manufacturing Opportunities in Carroll County, Georgia," Georgia Tech Report, February 1964, coauthor
Major Reports and Publications (continued)

33. "Peanut Processing Opportunities," A joint publication of Coastal Plains Regional Commission, Southwest Georgia Planning and Development Commission, Rural Development Center, Georgia Institute of Technology and University of Georgia, June 1972, co-author


35. "The Outlook for Processing Peanut Meal into Edible Protein Products in Georgia," Georgia Tech Report, June 1973


40. "Opportunities for Timber-Based Industries in Greene County, Alabama," Georgia Tech Report, January 1974
DIAMOND, HARVEY--Senior Research Engineer, Industrial Development Division, Engineering Experiment Station

Education

St. Johns University 1941-1942
B.S. in Textile Engineering, North Carolina State College 1942-1946

Employment History

Cohn-Hall-Marx, Converter and Assistant Designer 1946-1947
American Woolen Company, Designer and Assistant Buyer 1947-1950
Dux Mixture Hardware Company, Partner 1950-1960
Georgia Institute of Technology
Assistant Research Engineer 1960-1965
Research Engineer 1965-1967
Senior Research Engineer 1967-Present

Experience Summary: Economic feasibility studies; plant location analyses; market research to identify manufacturing and nonmanufacturing business opportunities; raw materials and intermediate products availability studies; liaison with prospects on industrial location possibilities; evaluation and development of area resources; transportation studies; management and technical assistance to prospective and established business; product diversification studies; manpower resources; industrial economic analyses; purchasing and marketing of hardware, wholesale and retail; textile designing; textile converting. Coeditor of monthly metalworking bulletin.

Current Fields of Interest

Market analyses; plant location criteria; economic feasibility analyses.

Major Reports and Publications

Major Reports and Publications (continued)

12. "Mobile Homes in Georgia: A Study of the Personal Property Taxes Levied on Mobile Homes in the Metropolitan Areas of Georgia and the Significance of the Mobile Home Industry to the State," Georgia Tech Report, February 1965, coauthor


NELSON, EDWARD A., JR.--Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Electronics Technology, Hampton Institute 1968
Certificate in Business Administration, Rochambeau School 1969
M.B.A. in Management, Atlanta University 1972-1974

Employment History

Green Giant Company, Supervisor 1965-1966
International Business Machines, Technician 1967
Electrical Engineer 1968-1972
Federated Credit Corporation, Collector 1972
Georgia Institute of Technology
Assistant Research Scientist 1972-1974
Research Scientist 1974-Present

Experience Summary: Employed by Green Giant Company as a supervisor for two summers. Responsible for incoming scheduling and production control of raw goods. Supervised approximately 31 employees in handling heavy production equipment. While a student at Hampton, employed by IBM on the cooperative work-study program as an electronics technician. Responsibilities included vendor semiconductors. After graduation, employed by IBM as a Junior Electrical Engineer in Failure Analysis Engineering. Responsible for the analysis of test site and machine failures for IBM computers. Promoted to Associate Electrical Engineer in Thermal Analysis Engineering, where responsibilities included the analysis of heat transfer and dissipation in integrated circuitry. Designed and implemented test plans for Advance Packaging Technology. While attending Atlanta University, was employed by Federated Credit Corporation as a collector for delinquent accounts. Presently employed by Georgia Tech as a Research Scientist. Responsibility includes management and technical assistance to small businesses and industry, performing market and feasibility studies, analysis of management systems, analysis of management systems, analysis of organizational structures and assistance in financial management.

Current Fields of Interest

All aspects of economic development. This includes minority business development; industrial, community, and international development; and the analysis of management systems.

Major Reports and Publications

Major Reports and Publications

PARETS, GASTON A.--Research Engineer, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Engineering, with emphasis on Industrial Processes and Operations and Computer Science; minor in mathematics; University of Miami 1966
Master of Business Administration, with emphasis on Economics, Finance, and International Business and Trade; Georgia State University 1968
Additional courses and seminars in Business, Management, and Industrial Development 1969-1970
Fluent in the Spanish and Portuguese languages

Employment History

Johnson Controls, Inc.
Assistant Engineer and Technical Draftsman 1964-1966
Ford Motor Company, Automotive Assembly Division
Process Engineer 1966-1967
Manufacturing Engineer "A" 1968-1970
East-West Center, University of Hawaii, Research Fellow 1972
Georgia Institute of Technology
Research Engineer 1970-Present

Experience Summary: Worked with Johnson Controls, Inc., as a technical draftsman and assisted project engineers in projects related with the design and installation of heating and refrigeration automatic control systems. While associated with Ford Motor Company, the prime responsibility was to ascertain that vehicles were assembled in the specified manner, and to supervise the building and installation of tools and equipment required for this purpose. This function required close coordination with such groups as Quality Control, Industrial Engineering, Plant Engineering and others. During the period June-October 1972, was invited by the East-West Center at the University of Hawaii to become part of a five-man study team which conducted a study on the economy, research institutions, and private industry in Indonesia in an effort to determine the feasibility of the establishment of an Industrial Technology Center in that country. This project required extensive travel in Indonesia and other Southeast Asian countries, and the results were formally presented in an International Conference on Adaptive Technologies at Honolulu, Hawaii, October 4-6, 1972. During the first three years at Georgia Tech, activities consisted of the preparation, implementation and follow-up of industrial development projects in Latin America, including the preparation of project proposals for presentation to private and public, national and international organizations. Activities in the international development field included three months of technical assistance to the Industrial Development Office of the University of Carabobo in Valencia, Venezuela, direct involvement in the U.S. AID-sponsored industrial development program of the Republic of Paraguay, and assistance to the Development and Productivity Center, a private consulting group, also in Paraguay. A result of these programs was the generation of a series of feasibility studies, community industrial profiles, training manuals, and other specialized studies. Another responsibility within the international area was participation in the preparation and conduct of a series of 12-week international development seminars, which were
attended by Latin American professional developers and government officials. Current responsibilities with the Industrial Services Branch consist of the provision of management and technical assistance to small and medium-size industries in Georgia and other southeastern states.

Major Reports and Publications

3. "Industrial Profile of the City of San Felipe, Venezuela," University of Carabobo, Venezuela, 1971
4. "Pilot Study on the Generation and Diffusion of Adaptive Technology in Indonesia," Technology and Development Institute, East-West Center, Honolulu, Hawaii, October 1972, coauthor
18. Pre-feasibility Studies on Various Industries in the U.S. and in Latin America
POTTS, PHILLIP W.--Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1962
M.B.A. in Marketing, Georgia State University 1968

Employment History

U.S. Army 1955-1958
Georgia Institute of Technology, Student 1958-1962
General Motors, Accountant 1958-1962
St. Regis Paper Company, Production Department Head, Sales Coordinator, Production Coordinator 1964-1972
Georgia Institute of Technology Research Scientist 1972-Present

Experience Summary: Served three years in U.S. Army Intelligence, traveling extensively throughout Europe. Employed by General Motors in accounting functions of payrolls, accounts payables, accounts receivables, and standard costing. Held various positions with St. Regis Paper Company from production department head to sales coordinator and production coordinator, being responsible for supervision of several hundred production personnel, quality control, production scheduling, inventory control, shipping and receiving efficiency, purchasing, customer service, and implementation of systems for changing production and financial records from manual calculation to EDP. Work at Georgia Tech has been mostly in the areas of market studies, economic feasibility studies, and production management (inventory control, job costing systems, production scheduling, plant layouts, utilization of raw materials, quality control, etc.).

Current Fields of Interest

All aspects of industrial management, including market analysis, economic feasibility studies, and research in industrial development.

Major Reports and Publications

5. "An Examination of the Existing Commercial Market for Urethane Foam Structural Panels in the Southeast," Georgia Tech Report, July 1973, coauthor and project director
Major Reports and Publications (continued)

11. A Study of Major Functional Components for the Position of Joint Executive Director of the Habersham County Industrial Authority and Habersham County Chamber of Commerce," Georgia Tech Report, July 1974, coauthor
12. "A Productivity Program for the Engineering Experiment Station," Georgia Tech Report, November 1974, coauthor and project director
Major Reports and Publications (continued)

10. "La Fabricacion de Aisladores de Porcelana en Venezuela," Report of the University of Carabobo (in Spanish), 1971, coauthor
CHART 2

This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 27th day of June 1972.
CHART 3
REGIONAL ECONOMIC DEVELOPMENT CENTER ACTIVITY REPORT
October 1, 1974 to December 31, 1974

<table>
<thead>
<tr>
<th></th>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Venture</th>
<th>Community Development</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
</tr>
<tr>
<td>ONGOING (BEGINNING)</td>
<td>5</td>
<td>7</td>
<td>14</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>NEW</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>DISCONTINUED</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>ONGOING (ENDING)</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL ACTIVE DURING QUARTER</td>
<td>12</td>
<td>12</td>
<td>17</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

Percentage of Effort as measured by Cost*

<table>
<thead>
<tr>
<th></th>
<th>This Period</th>
<th>Previous Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Stabilization</td>
<td>32</td>
<td>25</td>
</tr>
<tr>
<td>Business Expansion</td>
<td>22</td>
<td>35</td>
</tr>
<tr>
<td>New Venture</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>Community Development</td>
<td>22</td>
<td>20</td>
</tr>
</tbody>
</table>

* Cost is interpreted to mean Budget Cost for Period of Reporting.
### Chart 4

#### Summary of Project Activity by Type and Subregion

<table>
<thead>
<tr>
<th>Subregion</th>
<th>New Venture</th>
<th>Business Expansion</th>
<th>Business Stabilization</th>
<th>Community Development</th>
<th>Current Costs % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Savannah River EDD</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Coastal Plain EDD</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Georgia Mountains EDD</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Heart of Georgia EDD</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Northeast Georgia EDD</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Oconee Area EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Slash Pine EDD</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Southwest Georgia EDD</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Middle Flint EDD</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Chattahoochee-Flint EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coastal Area EDD</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Lower Chattahoochee EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Projects Outside EDD's</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>8</strong></td>
<td><strong>12</strong></td>
<td><strong>8</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
### Chart 5

**Job Impact Summary**

<table>
<thead>
<tr>
<th>Area</th>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Venture</th>
<th>Community Econ. Develop.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
</tr>
<tr>
<td>Central Savannah River EDD</td>
<td>Not Estb. 0</td>
<td>Not Estb. 14</td>
<td>Not Estb. 0</td>
<td>Not Estb. 0</td>
<td>Not Estb. 0</td>
</tr>
<tr>
<td>Coastal Plain EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Georgia Mountains EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Heart of Georgia EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Northeast Georgia EDD</td>
<td>&quot;</td>
<td>58</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Oconee Area EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Slash Pine EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Southwest Georgia EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>85</td>
<td>&quot;</td>
</tr>
<tr>
<td>Middle Flint EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Chattahoochee-Flint EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Coastal Area EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Lower Chattahoochee EDD</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Projects Outside EDD's</td>
<td>&quot;</td>
<td>32</td>
<td>&quot;</td>
<td>0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>99</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

-34-
Map 2

ECONOMIC DEVELOPMENT DISTRICTS

1. Georgia Mountains EDD
2. Northeast Georgia EDD
3. Central Savannah River EDD
4. Oconee EDD
5. Heart of Georgia EDD
6. Coastal Plain EDD
7. Slash Pine EDD
8. Coastal EDD
9. Southwest Georgia EDD
10. Middle Flint EDD
11. Chattahoochee-Flint EDD
12. Lower Chattahoochee EDD

Approved Counties
Map 3

EDA Counties and EDD’s as of 1 January 1974

LEGEND:

- OPEN PROJECTS
- ELIGIBLE COUNTY
- ECONOMIC DEVELOPMENT CENTER
A Program of Management and Technical Assistance in Designated EDA Counties in Georgia

by William C. Ward, Jr.
Hardy S. Taylor
Charles C. Wommack

INDUSTRIAL DEVELOPMENT DIVISION

Final Report 1974

Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
Atlanta, Georgia
A PROGRAM
OF MANAGEMENT AND TECHNICAL ASSISTANCE
IN DESIGNATED EDA COUNTIES IN GEORGIA

Final Report
by
William C. Ward, Jr.
Senior Research Scientist
Hardy S. Taylor
Senior Research Scientist
Charles C. Wommack
Research Scientist

This technical assistance program was accomplished by professional consultants 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.

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology
December 1974
TABLE OF CONTENTS

SUMMARY OF CENTER ACTIVITIES

I. BACKGROUND INFORMATION
   A. Economic Characteristics of Service Area
   B. Organization and Establishment of Center

II. PROGRAM ADMINISTRATION
   A. Program Objectives
   B. Technical Assistance Service
   C. Project Personnel
   D. Phasing of Work Program
   E. Internal Management Policies and Procedures
      1. General Program Approach
      2. Operating Policies
      3. Individual Project Approach
   F. Relationship to Other Development Efforts

III. STRATEGY FOR SUBREGIONS

IV. TECHNICAL ASSISTANCE PROJECTS
   A. Location
   B. Highlights of Project Activity
   C. Project Summaries
      Central Savannah River Economic Development District
      Coastal Plain Economic Development District
      Georgia Mountains Economic Development District
      Heart of Georgia Economic Development District
      Northeast Georgia Economic Development District
      Oconee Area Economic Development District
      Slash Pine Area Economic Development District
      Southwest Georgia Economic Development District
      Middle Flint Economic Development District
      Chattahoochee-Flint Economic Development District
      Coastal Area Economic Development District
      Lower Chattahoochee Economic Development District
      Projects Outside of Economic Development Districts

V. EVALUATION OF PROGRAM EffORT
EXHIBITS
1. Organization Chart - Georgia Institute of Technology
2. Organization Chart - Industrial Development Division
3. Biographical Sketches

CHARTS
1. Economic Characteristics of EDA - Designated Counties - Georgia
2. Waived
3. Regional Economic Development Center Activity Report
4. Summary of Project Activity by Type and Subregion
5. Job Impact Summary

MAPS
1. Areas of Field Office Responsibility
2. Economic Development Districts
3. EDA Counties and EDD's as of 30 June 1974

APPENDICES
1. Establishment and Reporting of EDA Projects
2. Outline of IDD-EDA Program in the Northeast Georgia EDD
3. Letters of Appreciation
4. News Articles
SUMMARY OF CENTER ACTIVITIES

Overall Program Objectives

The program activities described in this report represent an extension of the Industrial Development Division's established service to Georgia business and industry through market research, management guidance, and technical assistance. The specific objectives of the EDA-sponsored program are the following:

- To stimulate the expansion and diversification of existing industry.
- To support the formation of new, economically sound enterprises.
- As an ultimate objective from the two stated above, to create additional jobs.

Service Region

The region covered under the EDA program of management and technical assistance which is carried out by IDD encompasses all designated EDA counties in the state of Georgia. As of the end of the project year there were 87 designated EDA counties in Georgia and three counties designated as eligible under Title I only, for a total of 90 counties throughout the state. These designated counties represent the most economically depressed areas of the state. The depressed economic conditions in these counties have resulted in high out-migration, high percentage of poverty population, and high unemployment. The objectives of the EDA sponsored program of management and technical assistance address the basic underlying problem of inadequate employment opportunities which has caused the depressed economic conditions in the designated counties.

Project Activity

During the project year, 85 management and technical assistance projects were active under the EDA program. In drawing conclusions about the program, it would not be difficult to overstate the impact of the work performed by IDD staff personnel on the individual projects; however, available information indicates some noteworthy results in the area of employment and jobs affected. A total of approximately 801 identifiable jobs have been saved in 16 firms assisted by IDD. Another 827 identifiable jobs have been created in 30 expanding companies which were assisted. In the 28 new ventures which were aided by IDD during the year, 295 new jobs either have been created or show definite promise of early establishment.
I. BACKGROUND INFORMATION

A. Economic Characteristics of Service Area

The service area covered by the EDA Technical Assistance Grant effective during fiscal year 1973-1974 is comprised of 90 designated counties throughout the state of Georgia. These designated counties, shown in Table 1, represent the most economically depressed areas in the state. The high net out-migration rate in most of the counties (as high as 37%) is the result of stagnant or declining economic conditions. This conclusion is further substantiated by the high percentage of individuals (as high as 60%) who fall into the below poverty income level. The IDD program which is carried on in the designated EDA counties in Georgia is designed to respond to the need for economic revitalization in these counties through the creation of new job opportunities which result from the expansion of existing business and the formation of new business and industrial ventures.

B. Organization and Establishment of Center

From a comprehensive plan proposed in October 1955, the idea of an industrial development program at Georgia Tech became a reality in July 1956 with the establishment of a three-man branch. The Industrial Development Branch grew to division status within the Engineering Experiment Station in 1962; currently the Industrial Development Division (IDD) has more than 60 employees located in the central office in Atlanta and in branch offices in Albany, Augusta, Carrollton, Douglas, Macon, Rome, and Savannah.

The overall objective of the Industrial Development Division is to stimulate and advance industrial and economic development. This objective is to be achieved through active cooperation with other agencies and organizations engaged in the field of industrial and economic development and through the continuing development and implementation of programs which are designed to accomplish the following specific aims:

1. To provide the factual, scientific research needed to assess the economic status and development potential of the state and its subdivisions.

2. To describe, measure, and evaluate the physical and human resources of the state and its subdivisions.

3. To determine, through objective research and analysis, the types of business and industrial operations that are best suited for development or expansion in Georgia and in specific locations within the state.

4. To serve as a center for the collection, interpretation, and dissemination of information relating to industrial and economic development.
5. To provide professional assistance, information, and service to governmental units and to other industrial and economic development groups.

6. To provide professional assistance, information, and service to established and prospective business and industrial firms.

7. To motivate and assist public and private organizations in the utilization of research findings in the achievement of industrial and economic potentials.

8. To provide professional instruction and guidance in the application of the principles and techniques of industrial and economic development.

Development of Management and Technical Assistance Program

In 1960, the Industrial Development Division, under the Management Research Grant Program of the Small Business Administration, conducted a comprehensive study of the problems and needs of small manufacturing management. The most significant finding of this study was that small businessmen critically need direct, personal guidance in resolving internal problems affecting their survival and growth.

To at least partially fulfill this need and in keeping with the sixth aim specified above, in early 1960 the Division started a modest program of management and technical assistance to small business and industry in Georgia. Response to this service in the ensuing months prompted the formation of the Industrial Services Branch to deal exclusively with the task of providing direct assistance to small businessmen in Georgia. As a result of the expansion of functions in the Branch, the EDA program is now centered in the EDA Services Section.

On March 11, 1965, the U. S. Department of Commerce announced approval of a major program to stimulate the growth and expansion of business and industry in 16 designated counties in Georgia. This program was conceived and conducted as a joint effort of the Economic Development Administration, the Georgia Department of Industry and Trade, and the Georgia Institute of Technology. Work on the program was conducted by staff members of the Industrial Development Division (IDD) of Georgia Tech's Engineering Experiment Station during the contract period beginning June 1, 1965, and ending May 31, 1966.

On May 11, 1966, the Economic Development Administration approved the extension of the management and technical assistance program to June 1, 1967. In brief, this program covered an expansion of the 1965-1966 program with services oriented toward assistance to firms in designated Economic Development Districts. Additional service also was to be provided (1) to firms in counties qualified for EDA assistance in those cases where requests for assistance were approved by the EDA Field Coordinator and (2) to the EDA Field Coordinator in those cases where there was a need for data concerning the impact on employment opportunities of EDA funds to be expended for public works projects.
On April 19, 1967, the Economic Development Administration, U. S. Department of Commerce, announced the extension of the management and technical assistance program for a third year. In brief, this program covered an expansion of the 1966-1967 program with services oriented toward assistance to firms in designated Economic Development Districts and EDA counties. Additional service also was to be provided (1) to firms in Economic Development Centers, (2) to firms in EDA-designated areas in bidding for government contract work, (3) to firms having received loans from the U. S. Department of Commerce upon request of the authorized representatives of the Contracting Officer, and (4) to the EDA Field Coordinator in those cases where there was a need for data concerning the economic impact that business and public works proposed for Economic Development Centers would have on the Economic Development Districts and surrounding EDA-designated areas. Further, a survey of an Economic Development District to determine the extent, availability, and characteristics of the District's unemployed was to be made.

On April 12, 1968, the Economic Development Administration, U. S. Department of Commerce, announced the extension of the management and technical assistance program for a fourth year. In brief, this program covered a continuation of the 1967-1968 program, at a reduced level of funding and effort, with service oriented toward assistance to firms in designated Economic Development Districts and EDA counties. In addition, manufacturers in certain Economic Development Centers and EDA counties, not previously interviewed, were to be interviewed with assistance extended to those firms needing assistance. Assistance to the EDA Economic Development Specialists and Economic Development Districts was to be provided in those cases where there was a need for economic impact studies and documentation in connection with applications for industrial and public works projects.

On April 29, 1969, the Economic Development Administration, U. S. Department of Commerce, announced the extension of the management and technical assistance program for a fifth year. This program covered a continuation of the 1968-1969 program. Although the EDA grant for the program was reduced, the local matching funds were increased proportionately, resulting in the same level of funding and effort. These services were directed toward assistance to firms in designated Economic Development Districts and EDA counties. In addition, manufacturers in newly designated Economic Development Centers and EDA counties, not previously interviewed, were to be interviewed and assistance extended to those firms requiring assistance. A selective resurvey of firms in EDA-designated counties was to be conducted to determine firms with expansion possibilities and identify the demand for specific products and services which potentially could be supplied by existing or new firms located in EDA-designated areas. Assistance to the EDA Economic Development Representatives and Economic Development Districts was to be provided in a limited number of cases for economic impact studies and documentation in connection with applications for industrial and public works projects.

On April 9, 1970, the Economic Development Administration, U. S. Department of Commerce, announced the extension of the management and
technical assistance program for a sixth year. This program covered a continuation of the 1969-1970 program. The EDA grant for the program was reduced, and although the local matching funds remained about the same, there was a 22% net reduction in funds which restricted the amount of services that could be rendered. These services were directed toward assistance to firms in designated Economic Development Districts and EDA counties. In addition, manufacturers in newly designated Economic Development Centers and EDA counties, not previously interviewed, were to be interviewed and assistance extended to those firms requiring assistance. A selective resurvey of firms in EDA-designated counties was to be conducted to determine firms with expansion possibilities and identify the demand for specific products and services which potentially could be supplied by existing or new firms located in EDA-designated areas.

On June 4, 1971, the Economic Development Administration, U. S. Department of Commerce, announced the extension of the management and technical assistance program for a seventh year. Although this program covered a continuation of the 1970-1971 program, the EDA grant for the program was reduced an additional 12%. This necessitated a reduction in tasks to be performed under the grant. IDD was no longer required to prepare economic impact studies in connection with EDA loan applications. With more emphasis placed on utilization of the IDD field offices it was possible to continue providing full management and technical assistance services to firms in designated EDD's and EDA counties, although 15 additional new counties were added during the grant period.

While the EDA program assisted in continuing the Division's total program of service to industry, it did not lessen the need for the Division's basic program of management and technical assistance, which is state-wide in scope and limited in type of service only by available staff capabilities and by self-imposed policy restrictions.

During fiscal 1971-1972, 87 management and technical assistance projects were active under the EDA program. This brought to 603 the total number of projects undertaken by the Division from the inception of the program under the contract through May 31, 1972.

During fiscal 1972-1973, 81 management and technical assistance projects were active under the EDA program. This brought to 640 the total number of projects undertaken by IDD since the inception of the program under the contract through May 31, 1973.

During fiscal 1973-1974 the contract was changed to adjust the fiscal year to a 1 July to 30 June basis by making the 1973-1974 contract cover a thirteen (13) month period. During this contract period a total of 85 management and technical assistance projects were active bringing to 707 the total of projects undertaken by IDD since the inception of the program.

In its overall philosophy, the Industrial Development Division considers it imperative to work in conjunction with all economic development agencies, as well as economic districts and area planning and development commissions, to best serve the needs of the EDA-designated areas within the state in assisting them to improve their
economic base. The Exhibits 1 and 2 that follow show the relation of the Industrial Development Division and its branches to the structure of the Georgia Institute of Technology.

II. PROGRAM ADMINISTRATION

A. Program Objectives

The program activities described in this report represent an extension of the Industrial Development Division's established service to Georgia business and industry through market research, management guidance, and technical assistance. The specific objectives of the EDA-sponsored program are the following:

1. To stimulate the expansion and diversification of existing business and industry in designated EDA counties.

2. To support the formation of new, economically sound enterprises in designated EDA counties.

3. To create additional jobs in the designated EDA counties through the accomplishment of the first two objectives.

These program objectives are applied to all the EDA areas in Georgia and do not vary from subregion to subregion.

B. Technical Assistance Services

Under the EDA Technical Assistance Grant effective during fiscal year 1973-1974, the Industrial Development Division performed the following work in designated Economic Development Districts and in designated counties:

1. Technical and management assistance to existing business and industry to eliminate problems of marginal firms which endanger the existence of such firms for the purpose of saving jobs.

2. Technical and management assistance to existing business and industry to resolve operating problems inhibiting growth through expansion and diversification for the purpose of creating jobs.

3. Technical and management assistance in the formation of new industrial ventures for the purpose of creating jobs.

4. Market analyses.

This assistance covers all of the problems business falls heir to in the broad fields of management, operations, personnel, finance, product evaluation, and market identification. It should be noted that when a company or group of individuals expresses an interest in an EDA business loan the Industrial Development Division refers that company
or individuals to the EDA Economic Development Representative and
takes no action until requested to do so by the Economic Development
Representative.

C. Project Personnel

"People are our most important resources." The staff of the
EDA Services Section has had a wide range of practical experience in
consulting, administrative, and operational work with a variety of
business and industrial firms. Supporting the Section staff are
other professional personnel of the Industrial Development Division:
market analysts, plant location specialists, industrial economists,
statisticians, research librarians, and industrial and chemical
engineers. In addition, the facilities and personnel of other divi­sions of the Engineering Experiment Station and of Georgia Tech's
academic departments and library are available for consultative work
on special projects.

Exhibit 3 contains biographical sketches of the in-house profes­sionals of the Industrial Services Branch in which the EDA activities
are centered.

D. Phasing of Work Program

This work program which encompasses Chart 2 has been waived by
paragraph five of the grant amendment offer dated the 8th day of
July 1971.

E. Internal Management Policies and Procedures

1. General Program Approach

At the start of the program in June 1973, 18 projects were
carried over from the previous contract. Internal controls were
reviewed and reissued to provide for the effective assignment of
staff to be covered by the field offices (see Map 1), and manpower
estimates were prepared. Program controls were reviewed to insure
adequate work records (see Appendix 1), and man-hours were budget­ed
for each staff member according to the probable volume of work
to be generated from his individual assignments.

A presentation explaining the program was prepared and submit­ted
to the executive directors of the newly designated Economic
Development counties. (See Appendix 2, Outline of EDA Program.)
Map 2 shows the twelve Economic Development Districts and the
designated EDA counties in each. The program continued to be well
received and, while conducted consistently throughout the state,
was tailored to fit into the existing programs under way in some
of the Districts. Close liaison was maintained with the assigned
members of the Development District staffs by the Atlanta and field
personnel of IDD.
Normally, the first contact with individual firms in new EDA counties and Development Centers came as a result of local news articles in the area's newspapers. (See Suggested Press Release, Appendix 2.) The next contact was made by letter (see Exhibit B, Appendix 2) from the local Area Planning and Development Commission. Each of the firms contacted subsequently was visited by an IDD staff representative and, in some cases, an Area Planning and Development Commission staff representative. These visits served to establish personal contact with local business and industrial officials and to determine specific opportunity for expansion, diversification, or the establishment of new businesses. As a part of the interview, information was collected by the IDD staff representative on such factors as employment, product, and production capability of each company through use of the especially designed Manufacturers Data Sheet. (See Exhibit C, Appendix 2.)

As each individual project was developed, an IDD representative was assigned project director, and the required work was either performed by the project director or assigned to a staff specialist. The project director maintained close contact with the company involved until the project was completed; work performed on each project and the results achieved were recorded on individual project report forms. (See Appendix 1.) The format of the quarterly report to the Office of Technical Assistance of the Economic Development Administration was changed to conform to new EDA guidelines to facilitate reporting quarterly the nature and status of apropos work performed in each of the Districts to the District offices.

2. Operating Policies

When it is decided to proceed with a project, the assignment of personnel and the priority given to these assignments are determined on the basis of the potential return which can be expected from an investment of management and technical assistance services. Several external factors are involved in the determination of the project priorities. The four main criteria are as follows:

a. The inherent potential of the proposal is the first test applied to a request for assistance. If a new product or process is involved or if the request is for assistance in the organization of a new enterprise, an analysis is made of the profit potential of the product, process, or company. If the potential appears to be sound, the proposal has passed the first test.

b. The second criterion involves the management and/or technical competence of the individuals requesting assistance. Their competence becomes a factor in the overall potential of the proposal. Assuming a high degree of management competence, a proposal with sound market potentials justifies a high priority. Without such competence, the chances of success for a potentially good idea are obviously reduced.
c. The economic impact of IDD's assistance service represents the third test. A higher priority is normally given to those projects in which a relatively high return can be achieved through the creation of better paying jobs, the increased use of natural resources, and the fulfillment of a profitable business opportunity.

d. The fourth test relates to the financial resources supporting the proposal itself. If the proposal has validity in all other respects, financial backing usually can be secured from outside interests. If the proposed product, process, or company is weak in either of the first two external factors stated above, its potential success is weakened even if the individuals involved can provide their own financial backing. So priority is determined on the basis of the financial resources behind the proposal if it meets the first two criteria.

3. Individual Project Approach

As a result of IDD's work with companies of varying sizes during the initial six years of the program, a standard approach (especially in problem-solving projects) has evolved that has proved successful in most cases. The projects are approached in the following three steps:

a. Efforts initially are directed toward assisting the firm in solving its problem by itself. This is essentially a matter of assisting company representatives in identifying the true nature of a problem, then guiding them toward and through a series of steps by which they can resolve the problem.

b. If it is not possible for a firm to resolve a problem situation with its own personnel, direct assistance is provided in attacking those aspects of the problem which IDD can competently approach.

c. If a problem situation involves an unusual amount of time relative to the results to be attained or if qualified personnel are not available to attack the problem, the firm is advised of its need for competent consulting specialists.

F. Relationship to Other Development Efforts

In furthering the EDA objectives in Georgia, the Industrial Development Division works closely with representatives of the following organizations:

Georgia State Office of Planning and Budget - Georgia Department of Community Development - Economic Development Districts - Area Planning and Development Commissions - Chambers of Commerce - local Industrial Development groups - Coastal Plains Regional Commission - Small Business Administration - EDA Economic Development Representatives.
Particular attention is directed to working with the EDD's and APDC's on individual projects. When an assistance project is opened, these organizations are notified that IDD will be working in their area and a monthly progress report of activity on projects within their area is furnished.

Cooperation with the above-mentioned organizations is enhanced by IDD activities other than EDA within the state wherein IDD personnel are in almost constant contact with these groups.

III. STRATEGY FOR SUBREGIONS

Maps 1 and 2 depict graphically the Industrial Development Division's approach to serving the objectives of EDA by making use of the IDD field offices that blanket the state and how this coverage relates to the Economic Development District areas.

Map 1 identifies the location of the field offices and shows the area of responsibility of each office. Map 2 identifies the twelve Economic Development Districts. It should be noted that the field office areas correspond to the EDD boundaries where possible, although in some cases the field office areas extend beyond those boundaries in order to serve those EDA-designated counties not presently within EDD's.

This ability of IDD to effectively serve the entire state through the field office network means that the EDA objectives in all parts of the state can be served efficiently and economically by the trained professionals who man the field offices as well as by the EDA-oriented staff in Atlanta.

These management and technical assistance program objectives are applied to all the EDA areas in Georgia and do not vary from subregion to subregion.

IV. TECHNICAL ASSISTANCE PROJECTS

A. Location

Map 3 identifies the counties in which work was performed under the program and indicates the number of projects conducted in each county.

B. Highlights of Project Activity

Chart 3 summarizes the highlights of project activity by major program categories. Chart 4 summarizes the project activity by type and subregion to indicate the distribution of effort throughout the state. Chart 5 summarizes the project activity by type and subregion to indicate the job impact.
The following projects were selected for special mention:

**Project 567:** A group of individuals who own a deposit of high quality glass sand requested assistance in determining the potential market for processed sand. The IDD staff prepared and presented to the management of this firm a market research report on the market for construction sand within a 100-mile radius of Mt. Vernon, Georgia (location of the sand deposit). The owners advised IDD that they were successful in obtaining an SBA 502 loan for the construction of a facility to process the sand. Construction of the new facility is completed and information was provided by IDD on design criteria for a settling pond to be used in the company's water pollution control efforts. At the request of management, information was collected and provided to the company for their use in evaluating whether to buy or lease their fleet of trucks. Information was also collected on pricing practices of sand processors in Georgia. At the request of company officials, IDD prepared a list of 31 companies in the area which would be potential customers. Assistance was also given in overcoming a problem of clay impurities in the sand being mined and in securing a water analysis from the Georgia Department of Natural Resources. This new sand mining operation is now in production, and current employment stands at nine and is expected to grow.

**Project 613:** The president of a lumber mill in Telfair County requested IDD assistance in submitting an EDA loan application in order to secure funds for completing its lumber mill complex in Lumber City, Georgia. A presubmission conference was held with EDA field representatives, IDD staff, and principals of the company. Following this conference, IDD provided technical assistance to the company in several phases of its production operation and in preparing material for the loan application. Subsequent developments made it possible for this company to undertake the planned expansion through internal financing from its operating profit, and no loan was required. The expansion is now proceeding as planned, and there are 89 employees.

**Project 614:** This new manufacturer of utility buildings in Taylor County requested IDD assistance in developing the material needed for an SBA loan application to finance a move to a larger plant in order to enable it to increase production to meet its sales level. Information regarding general information on the company, cash flow projections, and pro forma financial statements was collected and incorporated into the SBA loan application. Following the submission of this application to SBA, the company was informed that the loan was approved in the amount of $50,000. There was a temporary delay in disbursement of the funds under the approved SBA loan due to some technicalities. The principals were assured that there was no serious problem with the loan, and they proceeded with the move to a larger plant. In connection with this move, IDD assisted company management in developing a new cost accounting system and in installing the simple management tools of breakeven point analysis, cash budgeting, sales
forecasting, and production forecasting. Due to the continuing delay in securing funds under the SBA loan, the principals of this firm made arrangements to meet its financial needs without SBA participation, and the loan application to SBA was withdrawn. Since obtaining adequate financing, this firm has stabilized its operations and has doubled its work force to a total of eight employees.

**Project 632:** A metal fabricating firm in Screven County requested assistance in plant layout and assembly line design for the production of wrecker bodies for small trucks. Information and assistance was also requested on painting processes and on safety regulations relating to these painting processes. In visits to this company, the IDD staff provided information on sources of supply for painting equipment and painting service. A suggested plant layout and assembly line design was prepared and provided to the company. Data on improved welding methods were also supplied. In recent contacts with the company, it was found that due to increased sales, no reduction of its eleven man work force was required.

**Project 635:** IDD assisted this company with plans for the construction of a new manufacturing facility. This work included lighting and electrical planning assistance, insurance and fire code guidance and recommendations, and assistance with production techniques. This company has now completed its new plant and is in full production. The new plant is a 30,000-square-foot facility, and estimated capital expenditure, including new machinery, is approximately $200,000. Employment is presently 30.

**Project 638:** The president of this firm requested IDD assistance in analyzing the company's personnel procedures and policies in order to reduce the high turnover being experienced in its work force. A meeting with the management of this firm revealed that since 1967 the work force has grown from 424 employees to the current level of nearly 1,000 employees. In analyzing the problem, it was discovered that the primary cause of the work force turnover was the explosive growth and expansion of the company. During the visit to the plant, many recommendations and suggestions were made to management and they expressed the intention of implementing these suggestions immediately. A written report detailing the suggestions has been prepared and forwarded to the company management. In recent contacts with this company, officials indicated that good progress is being made in resolving problems in personnel policies and procedures.

**Project 640:** This door and window manufacturer requested assistance in several aspects of planning a new facility for its operations. The present plant is too small to accommodate the current level of operation, and a new facility is needed to increase production to meet the recent growth in sales. In several meetings with company officials, the IDD staff has assisted in developing the building plan, site plan,
and fire protection plan. The overall building size needed and the location of supporting columns within the production area were discussed. Information has been collected and supplied to the company on sprinkler systems, heating and air conditioning equipment suitable for the new building, and insurance rates for the planned facility. Assistance was also given in developing a detailed plant layout for the new building which will assure efficient use of the available space. Construction of the new plant is now completed and additional assistance has been given in starting up production. Currently, the company has a work force of twelve employees.

**Project 685:** This firm was experiencing a problem with poor adhesion of the coating used in manufacturing mirror wall tiles. The problem was determined to be improper and insufficient cleaning of the glass and several alternate methods of cleaning were proposed to the management. They have continued to make the product and this relatively new operation has gone from 50 to about 100 employees.

C. Project Summaries

The 85 individual projects which were active during the year under the program of management and technical assistance to businesses, industrial firms, and communities in designated Georgia counties are listed by Economic Development Districts and described on the following pages. These summary descriptions include an identification of each project by number, type, and location; a brief description of the work performed; and a statement of the results achieved. The 33 projects which were still active as of June 30, 1974, are listed under "Ongoing Projects" in each EDD.
CENTRAL SAVANNAH RIVER ECONOMIC DEVELOPMENT DISTRICT

General

The Central Savannah River Economic Development District consists of thirteen counties, of which ten are eligible Redevelopment Area counties: Burke, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, Screven, Taliaferro, Warren, and Wilkes. The Growth Centers are Augusta (Richmond County) and Swainsboro (Emanuel County).

Discontinued Projects

During the period seven projects were discontinued in this area.

Project 632: Assistance to a metal fabricating company in Screven County

Nature of Problem: This firm has recently built a new building and has requested assistance in plant layout and assembly line design for the production of wrecker bodies for small trucks. Information and assistance were also requested on spray dip painting and OSHA regulations on painting processes.

Work Performed: Two visits have been made to this new plant by IDD personnel. Information has been provided on the availability of painting services in Atlanta, as well as information on paint manufacturers' representatives who could be contacted. Plant layout assistance and assistance in assembly line design have been initiated. Information on improved welding methods has also been provided to the company.

Results: This company has recently advised IDD that it has a substantial backlog of orders and that no additional assistance is needed at this time.

Project 633: Assistance to a railroad equipment repair shop in Augusta, Georgia (Growth Center)

Nature of Problem: This firm requested assistance in resolving difficulties in the paper work involved in its job shop cost accounting system.

Work Performed: An IDD staff member spent two days in this firm's plant studying the procedures in use and the control systems required for the cost accounting process. Based upon the observations made during this study recommendations have been formulated in a report to the company on how it can improve its timekeeping and cost accounting procedures. Company management is now studying the recommendations made in the report in an attempt to simplify the approach and adapt the recommendations to their specific operation procedures.

Results: Company management has advised IDD that an industrial engineer has been employed and that the recommendations made are being implemented. No further assistance is needed, so the project is closed.
Project 636: Assistance to an individual investigating a new venture in fiber glass boat manufacturing in Augusta, Georgia (Growth Center)

Nature of Problem: This individual requested assistance from IDD in securing information on fiber glass fabrication and other technical aspects of fiber glass boat manufacture.

Work Performed: The IDD staff has assembled a list of publications and has written, in memorandum form, an outline of suggested steps to take in this individual's study of the feasibility of entering into the manufacture of fiber glass boats. This individual has now progressed to the development of a prototype of the boat he plans to manufacture and IDD has provided information on techniques and equipment used in making a prototype fiber glass boat.

Results: The individual being assisted in this new venture has recently moved out of the area and, therefore, the project is being closed.

Project 646: Assistance to a knit wear manufacturer in Wilkes County

Nature of Problem: This firm was experiencing a severe materials handling problem in its shipping department. Assistance was requested in making improvements in the shipping department in order to improve efficiency.

Work Performed: An IDD staff member visited this company to study the methods used in the shipping department and to discuss problem areas with company officials. Information on improved materials handling methods was requested from several sources and has been studied and provided to company management with recommendations on which methods seem to be most applicable to the problem at hand.

Results: In follow-up visits to this company, assistance was given in resolving problems encountered in implementing the changes recommended. This firm has now employed a full-time industrial engineer and no longer needs IDD assistance; therefore the project is closed.

Project 655: Assistance to a tool and die shop in Burke County

Nature of Problem: The owner of this well-equipped tool and die shop requested IDD assistance in identifying a product which he could produce with his existing equipment and unskilled workers. This diversification is desirable in order to reduce the owner's reliance on his limited number of customers for tool and die work.

Work Performed: An IDD staff member visited this company to determine the capabilities of the equipment and work force in order to establish parameters for the new product search. The information collected in this visit was summarized and was being used in the search for an appropriate new product. Due to sickness in the owner's family, the search for a new product has been delayed. Information on a potential new product (small wheels) has been forwarded to the owner of this company for his consideration.

Results: Based on the information supplied by IDD, the owner of this company has decided to begin the manufacture of small wheels in the near future. No further assistance is needed; the project is closed.
Project 660: Assistance to a mobile home manufacturer in Augusta, Georgia (Growth Center)

Nature of Problem: The management of this new mobile home plant requested IDD assistance in developing a revised plant layout and in improving production methods.

Work Performed: A drawing was made of the existing plant layout for use in developing suggested revisions. A new layout was designed including suggested improvements in work station design in order to increase worker productivity and reduce materials handling. Additional information was collected and provided to the company on the recommended changes, and management began implementing the recommended changes.

Results: Some of the recommended changes proved difficult and expensive to implement; therefore, additional assistance was given to overcome these problems. Due to unfavorable market conditions, this firm has decided to postpone indefinitely their plant improvement plans. The project is closed.

Project 674: Assistance to a new venture in patent medicine in Augusta, Georgia (Growth Center)

Nature of Problem: An individual who has discovered a substance that eliminates the desire for tobacco and is tasteless and nonhabit-forming has requested IDD assistance in establishing a venture to exploit this product.

Work Performed: The IDD staff has collected and provided to this individual information on a flavoring substance which could be used in his product. Data have also been supplied on methods of producing pills, and equipment suitable for starting production is being sought.

Results: The first sample pills are now being tested by volunteers to determine the acceptability of the taste. No further assistance is needed; the project is closed.

Ongoing Projects

There are now five projects under way in this area.

Project 659: Assistance to a metal products manufacturer in Jefferson County

Nature of Problem: This firm which began operation one year ago has requested assistance in improving plant production efficiency in order to meet an increasing demand for its products.

Work Performed: In an effort to improve production efficiency, IDD developed a plant layout for the existing plant building and met with company management to review and explain the new layout. Company management accepted the proposed layout and began the preliminary steps to implement it. Recent contact with this firm has disclosed that rather than improve the existing plant, the company has decided to build a new building and abandon the existing plant. IDD will continue to assist the company in setting up its new plant.
Results: The project is continuing.

Project 680: Assistance to a textile manufacturer in Columbia County

Nature of Problem: This new manufacturer of woven upholstery fabric has requested IDD assistance in determining cost data on the various types of fabric produced in order to have a data base upon which to base pricing decisions.

Work Performed: During a visit by an IDD staff member, work was initiated in developing a system for collecting cost data. Assistance is also being given in locating suppliers of specialized equipment needed by this company. A supplier of a specialized piece of equipment was identified and referred to the management of this company. Assistance is continuing in developing a system for collecting cost data for use in making pricing decisions.

Results: The project is continuing.

Project 694: Assistance to a paper products manufacturer in Augusta, Georgia (Growth Center)

Nature of Problem: This firm generates a large quantity of waste paper and waste wax. IDD assistance has been requested in reducing this waste.

Work Performed: An IDD staff member visited this company to discuss this waste problem with management and to tour the facility to determine the type of waste and how it is being generated. It was recommended that the company have lab tests run on the waste material in order to determine the chemical characteristics in order to determine the best recovery method.

Results: The project is continuing.

Project 695: Assistance to a wood products manufacturer in Augusta, Georgia (Growth Center)

Nature of Problem: The management of this firm has requested IDD assistance with improving the layout of its sawing operation and in improving its materials handling methods for logs.

Work Performed: A visit has been made to this company to collect the information needed to initiate work on designing an improved plant layout.

Results: The project is continuing.

Project 698: Assistance to a meat company in Augusta, Georgia (Growth Center)

Nature of Problem: This firm has gone out of business and has requested IDD assistance in determining what type of industry could use its specially designed and constructed building so they can sell the property to a company that could generate employment in the area.
Work Performed: In a visit to this company's plant, an IDD staff member collected information on the plant and a detailed description of its special equipment. An attempt will be made to identify what type of operation could best utilize this plant.

Results: The project is continuing.
COASTAL PLAIN ECONOMIC DEVELOPMENT DISTRICT

General

The Coastal Plain Economic Development District consists of ten counties, of which eight are eligible Redevelopment Area counties: Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, and Turner. The Growth Centers are Valdosta (Lowndes County) and Tifton (Tift County).

Discontinued Projects

During the period three projects were discontinued in this area.

Project 640: Assistance to a door and window manufacturer in Valdosta, Georgia (Growth Center)

Nature of Problem: This firm requested assistance in several aspects of planning a new facility for its operations. The present plant is too small to accommodate the current level of operation and a new facility is needed to increase production to meet the recent growth in sales.

Work Performed: In several meetings with company officials, the IDD staff has assisted in developing the building plan, site plan, and fire protection plan. The overall building size needed and the location of supporting columns within the production area were discussed. Information has been collected and supplied to the company on sprinkler systems, heating and air conditioning equipment suitable for the new building, and insurance rates for the planned facility. Assistance was also given in developing a detailed plant layout for the new building which will assure efficient use of the available space.

Results: This company has moved into its new plant facility located in the Valdosta Industrial Park utilizing a plant layout provided by IDD. Plant facility investment was $300,000. Current employment is 12. No further assistance is needed; the project is closed.

Project 644: Assistance to a food service company in Brooks County

Nature of Problem: This company supplies prepared portion controlled lunches to institutional customers. Assistance had been requested in improving the plant layout including work station design and product flow.

Work Performed: A plant layout for this company's planned expansion was developed. Work areas were designated, and product flow detailed for the plant layout was also developed.

Results: The new plant layout was explained to company management and has been implemented. No further assistance is needed; therefore, the project is closed.
Project 657: Assistance to a hand craft cooperative in Valdosta, Georgia (Growth Center)

Nature of Problem: This cooperative has established a local outlet for its products and had requested IDD assistance in developing a marketing program in order to distribute its products outside south Georgia.

Work Performed: A survey of retailers in Atlanta dealing in hand crafted items was made in order to determine the acceptability of the products produced by this cooperative and to determine the normal trade and distribution practices used by marketers of similar items.

Results: A summary report of the findings of this survey was prepared and forwarded to the company with recommendations for developing a marketing program. The project is closed.

Ongoing Projects

There is now one project under way in this area.

Project 671: Assistance to an agricultural equipment manufacturer in Ben Hill County

Nature of Problem: This manufacturer of agricultural equipment is interested in expanding his operation and has requested IDD assistance in investigating the potentials of entering the manufacture of agricultural wheels.

Work Performed: Based upon this firm's estimate that a production level of 100,000 wheels annually will be required to achieve break-even, IDD has undertaken a market survey of the users of agricultural wheels. During the first week, a market demand of over 75,000 units was identified. Information was requested from suppliers on the cost and specifications of wheel manufacturing equipment. The IDD staff is now assisting company management in its evaluation of the data supplied by equipment manufacturers in order to select the equipment best suited to their needs.

Results: The project is continuing.
GEORGIA MOUNTAINS ECONOMIC DEVELOPMENT DISTRICT

General

The Georgia Mountains Economic Development District consists of 13 counties, of which six are eligible Redevelopment Area counties: Dawson, Forsyth, Rabun, Towns, Union, and White. The Growth Centers are Gainesville (Hall County) and Toccoa (Stephens County).

Discontinued Projects

During the period three projects were discontinued in this area.

Project 615: Assistance to a cooperative in Gainesville, Georgia (Growth Center)

Nature of Problem: A group of individuals has formed a cooperative for the production and processing of rabbits and has requested assistance in preparing a market study on the market for rabbit meat and by-products.

Work Performed: A meeting has been held with the manager of this group to discuss the various points to be covered in the proposed market study. The market study has now been completed and mailed to the manager of the cooperative. Additional assistance to this cooperative is pending a response from the manager.

Results: In recent contact with the manager of this cooperative, it was found that production and processing of rabbits is under way and that they are being marketed through a food brokerage firm in Atlanta. No further assistance is needed, so this project is closed.

Project 634: Assistance to a broom manufacturing company in Habersham County

Nature of Problem: The president of this firm requested IDD assistance in evaluating possible alternatives to wooden broom handles. He specifically requested assistance in investigating the possibility of using plastic broom handles.

Work Performed: An initial investigation into the costs of producing plastic broom handles indicated that plastic handles would be considerably more expensive than the wooden handles currently being used. Other possible materials for broom handles were investigated. An investigation was also made into the possibility of finding a source of lower cost wood handles.

Results: No practical alternative to the company's current source of broom handles could be identified. No additional assistance has been requested at this time. The project is being closed until such time as the company requests additional assistance.
Project 669: Assistance to an industrial development group in Toccoa, Georgia (Growth Center)

Nature of Problem: At the request of the Georgia Mountains Area Planning and Development Commission, IDD is providing assistance to the City of Toccoa in assessing the practicality of developing an industrial district on a selected parcel lying within Stephens County.

Work Performed: Detailed information has been collected in a meeting with local officials regarding the selected site and work has been started on evaluating the site in terms of its suitability for industrial use. Meetings have been held with the Georgia Power Company and the Georgia Highway Department in order to collect additional information. A preliminary report including a proposed industrial district design was prepared and forwarded to this industrial development group for evaluation and use in planning.

Results: Based on the evaluation of the preliminary report, a final report has been written and supplied to the group. Development of the proposed industrial district appears feasible if improvements recommended in the report are carried out. Recent contact with this development group revealed that work has begun on construction of roads according to the plans developed by IDD. No further assistance is needed; the project is closed.

Ongoing Projects

There are now two projects under way in this area.

Project 647: Assistance to an industrial development authority in Habersham County

Nature of Problem: This industrial development authority has requested assistance in developing plans for a new 37-acre industrial park in Baldwin, Georgia.

Work Performed: A meeting has been held with representatives of this development group to discuss their plans for the industrial park and to collect data on the characteristics of the site for the park. Various tasks were assigned to the interested parties, and a follow-up meeting will be held when these tasks are completed. Work on the layout and design of the industrial park has been completed and preliminary drawings have been presented to the group. Another visit to the site was arranged in order to survey potential storm drainage problems and estimate the extent of excavation needed to overcome the drainage problem. Several questions have arisen, such as the feasibility and economics of providing a railway spur to the site. Work is continuing on resolving these problems.

Results: The project is continuing.
Nature of Problem: This industrial development group requested IDD assistance in the preparation of a conceptual design plan for an industrial district on a site which the group presently holds.

Work Performed: The IDD staff has conducted a field inspection of the proposed site of the planned industrial district. Before design work could proceed, aerial photography of the site and other data had to be obtained. Work on obtaining the photography and other data is now completed and design work is now under way.

Results: The project is continuing.
HEART OF GEORGIA ECONOMIC DEVELOPMENT DISTRICT

General

The Heart of Georgia Economic Development District consists of nine counties, of which seven are eligible Redevelopment Area counties: Dodge, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, and Wilcox. The Growth Center is Dublin/East Dublin (Laurens County).

Discontinued Projects

During the period three projects were discontinued.

Project 567: Assistance to a proposed sand mining and processing operation in Montgomery County

Nature of Problem: A group of individuals who own a deposit of high quality glass sand requested assistance in determining the potential market for processed sand.

Work Performed: The IDD staff prepared and presented to the management of this firm a market research report on the market for construction sand within a 100-mile radius of Mt. Vernon, Georgia (location of the sand deposit). The owners advised IDD that they were successful in obtaining an SBA 502 loan for the construction of a facility to process the sand. Construction of the new facility is completed and information was provided by IDD on design criteria for a settling pond to be used in the company's water pollution control efforts. At the request of management, information was collected and provided to the company for their use in evaluating whether to buy or lease their fleet of trucks. Information was also collected on pricing practices of sand processors in Georgia. At the request of company officials, IDD prepared a list of 31 companies in the area which would be potential customers. Assistance was also given in overcoming a problem of clay impurities in the sand being mined and in securing a water analysis from the Georgia Department of Natural Resources.

Results: This new sand mining operation is now in production with a total of six employees. Plant investment to date is $500,000. No further assistance is needed; the project is closed.

Project 613: Assistance to a lumber mill in Telfair County

Nature of Problem: The president of this company had requested assistance in resubmitting an EDA loan application in order to secure the funds required for acquiring and completing the lumber mill complex at Lumber City, Georgia.

Work Performed: A presubmission conference was held with the EDA field representative, IDD staff, and principals of the company. In a visit to the company, the principals requested technical information on kiln drying of lumber. The technical information was mailed to the company. Company officials
have recently informed IDD that their planned expansion is under way and will be internally financed; therefore, no EDA loan will be needed. Additional assistance was requested in certain technical aspects of the plant expansion and IDD staff members worked with company officials to resolve these technical matters.

Results: Assistance in resolving the technical problems encountered in the plant expansion has been completed, and the expansion is proceeding as planned. No further assistance is needed; therefore, the project is closed.

Project 622: Assistance to a golf ball manufacturer in Montgomery County

Nature of Problem: This company's existing plant facility is too small, and the decision to delay a move to a larger plant has been re-evaluated; now plans are to proceed immediately with a move to a larger facility which has recently been acquired in Uvalda, Georgia.

Work Performed: Work has been completed on developing a suggested plant layout for the 11,000 square foot school building recently purchased by this company. Evaluation and recommendations have been formulated and presented to the company on materials handling equipment and procedures for the new facility.

Results: This company has been provided all the assistance needed for evaluating and preparing for their relocation to a new plant; therefore, the project is closed.

Ongoing Projects

There are now two projects under way in this area.

Project 687: Assistance to a health care firm in Dodge County

Nature of Problem: This health care firm requested IDD assistance in evaluating the feasibility of diversifying its operation to include the manufacture of fiber glass doors.

Work Performed: The IDD staff has visited this firm and discussed the planned manufacturing operation for producing fiber glass doors. At the suggestion of IDD, it was decided that the first step in evaluating the feasibility of such a venture should be a study of the market for doors. This market study has been completed and delivered to this group for use in planning.

Results: The project is continuing.

Project 705: Assistance to an electric motor rewinding company in Dublin, Georgia (Growth Center)

Nature of Problem: IDD assistance was requested by the owner of this company in Baxley, Georgia, in his efforts to determine the feasibility of establishing a branch operation in Laurens County.
Work Performed: It was determined that the first step in determining the feasibility of the planned branch plant should be a study of the market for electric motor service in the Dublin area. Approximately 80 companies within the Dublin-Laurens County area were contacted in order to determine their need for electric motor rewinding and electrical equipment servicing. It was determined that the approximate annual market for motor rewinding is $50,000, and the annual market for electrical equipment service is $90,000 in the area surveyed.

Results: The project is continuing.
General

The Northeast Georgia Economic Development District consists of ten counties, of which five are eligible Redevelopment Area counties: Greene, Madison, Morgan, Oglethorpe, and Walton. The Growth Center is Athens (Clarke County).

Discontinued Projects

During the period two projects were discontinued.

Project 629: Assistance to a new venture in the manufacture of prefabricated homes in Madison County

Nature of Problem: Two individuals currently operating a general contracting firm contacted IDD for assistance in evaluating the feasibility of establishing a prefabricated home operation in Ila, Georgia.

Work Performed: Several meetings were held with the principals as well as with potential investors regarding the establishment of a prefabricated home manufacturing operation. Preliminary cash flow projections for the first year of operation were prepared and checked for accuracy by the two principals. Negotiations were conducted with the investors who planned to build and lease the building to the principals of this new venture. During consultations with the investors, it was decided to seek a lease guarantee from the Small Business Administration. The market study and financial projections required for the lease guarantee application were completed by the IDD staff and submitted with the application. The lease guarantee was approved by SBA and construction of the plant was expected to begin within the next month.

Results: IDD has been informed by the principals of this new company that the mortgage company which was to finance the building has now advised them that due to high interest rates and shortage of lendable funds that they will be unable to finance the building. No further assistance is needed at this time; therefore, the project is closed.

Project 665: Assistance to a new venture in plywood manufacturing in Oglethorpe County

Nature of Problem: At the request of the Georgia Department of Community Development, IDD is up-dating a 1969 study of the feasibility of producing pine plywood in Oglethorpe County.

Work Performed: Current information has been collected on plywood prices, log costs, and wage rates in the area under study. This information has been supplied to the state agency for its use in attracting a new industry to Oglethorpe County. Based on the preliminary information provided, IDD has now been requested to up-date the entire feasibility study.
Results: This new feasibility study has now been completed and forwarded to the state agency. Further work on this project is pending a decision on the part of the principals which has been delayed indefinitely; therefore, the project is closed.

Ongoing Projects

There are now no projects under way in this area.
General

The Oconee Area Economic Development District consists of seven counties, of which three are eligible Redevelopment Area counties: Hancock, Jasper, and Washington. The Growth Center is Milledgeville (Baldwin County).

Discontinued Projects

During the period one project was discontinued.

Project 650: Assistance to a furniture manufacturer in Milledgeville, Georgia (Growth Center)

Nature of Problem: This furniture manufacturer requested assistance in locating a source of supply for packaging material and in the development of new production techniques and equipment design.

Work Performed: A potential supplier of the packaging material needed has been identified and referred to this company. A preliminary design for an automated piece of equipment has also been developed and sent to this company for its use in solving the equipment problem.

Results: In a follow-up visit to this company, it was found that no efforts have been made to implement the recommendations which have been made by IDD. No further assistance is needed; the project is closed.

Ongoing Projects

There are now no projects under way in this area.
General

The Slash Pine Area Economic Development District consists of eight counties of which six are eligible Redevelopment Area counties: Atkinson, Bacon, Brantley, Clinch, Coffee, and Pierce. The Growth Center is Waycross (Ware County).

Discontinued Projects

During the period seven projects were discontinued.

Project 560: Assistance to a fiber glass company in Bacon County

Nature of Problem: A group of individuals is establishing a company to manufacture fiber glass bath enclosures and has requested IDD assistance.

Work Performed: IDD is assisting with determining capital requirements, selection of equipment, and the development of a plant layout, and with a market evaluation. A visit was arranged to a plant in Metter, Georgia, which produces a similar product, for the purpose of observing the production process and reviewing the equipment used in the production of fiber glass products. A market survey has been prepared and presented to the company for evaluation. Based upon this report the principals have decided that their initial production estimates had been overly optimistic. They were assisted with a reevaluation of the proposed venture based on a reduced production estimate. An investigation was made of the feasibility of producing fiber glass septic tanks. Construction has been completed on a manufacturing facility for the production of bathroom fixtures. Efforts to recruit a plant manager have been successful and production has started. The firm which originally contracted to supply the molds failed to deliver and production was delayed while molds were being secured from another firm. Quality control checks by an IDD staff member were made on a representative sample of the first production unit. Assistance was also given in improving materials handling procedures in order to increase operating efficiency.

Results: The company has located in its new building utilizing a plant layout and technical assistance provided by IDD. Plant investment was approximately $200,000. They currently employ 15 persons and have a sales volume of $400,000 per year. The project is closed.

Project 638: Assistance to a food processing company in Coffee County

Nature of Problem: The president of this firm requested IDD assistance in analyzing the company's personnel procedures and policies in order to reduce the high turnover being experienced in its work force.
Work Performed: A meeting with the management of this firm revealed that since 1967 the work force has grown from 424 employees to the current level of nearly 1,000 employees. In analyzing the problem, it was discovered that the primary cause of the work force turnover was the explosive growth and expansion of the company. During the visit to the plant, many recommendations and suggestions were made to management and they expressed the intention of implementing these suggestions immediately. A written report detailing the suggestions has been prepared and forwarded to the company management.

Results: In recent contacts with this company, officials indicated that good progress is being made in resolving problems in personnel policies and procedures. No further assistance is needed, so this project is closed.

Project 643: Assistance to a sign manufacturing company in Waycross, Georgia (Growth Center)

Nature of Problem: At the request of the Slash Pine Area Planning and Development Commission, this company was visited by an IDD staff member to discuss the company's history and present condition. During this visit, assistance was requested in preparing a loan application for a plant expansion and additional production equipment.

Work Performed: Assistance was rendered in assembling information on the machinery required for the expansion and the cost of such machinery and the cost of required modifications to the plant building. Assistance was also rendered in documenting the future sales potential through a survey of the company's customers. Due to unacceptable delays caused by the CPA firm, the company has engaged a new CPA firm and is proceeding with the preparation of the loan application. Detailed equipment listings submitted by two suppliers were reviewed with company management by the IDD staff. The information needed for the loan application was completed by the CPA firm, and IDD assistance was rendered in preparing the loan application for submission to the bank.

Results: The loan application was completed and provided to company management; however, due to the unsuitability of plastic sign material due to the energy shortage, the owner has decided to indefinitely delay the submission of the loan application. No further assistance is needed; the project is closed.

Project 651: Assistance to an individual in Waycross, Georgia (Growth Center)

Nature of Problem: An individual requested IDD assistance in performing a market investigation to determine the feasibility of establishing a cold storage or bulk storage warehouse facility in Waycross, Georgia.

Work Performed: Preliminary information and data were collected for a market study on the market for a cold storage facility in Ware County, Georgia. This information was analyzed and assembled into a report which has been supplied to the individual who requested assistance.
Results: Due to the unfavorable findings of the market study performed by IDD, this individual has decided to abandon his plans to establish a cold storage facility. No further assistance is needed; the project is closed.

Project 656: Assistance to a janitorial service company in Coffee County

Nature of Problem: This firm was investigating the feasibility of producing a line of private brand cleaning products and requested IDD assistance in developing a marketing strategy and packaging design for a test market program.

Work Performed: On IDD's recommendation, this firm requested a written release from the chemical company allowing it to enter the retail market with the formulations being supplied to them for their janitorial service operation. Assistance was also rendered in determining production procedures, locating sources of supply and general management assistance. Work was begun on designing labels for the products and in securing samples of bottles from suppliers. A shipment of bottles was ordered for the market testing of the products to determine the acceptability of the line to housewives.

Results: Due to an increase in the janitorial service business of this company, the market test of the new product has been indefinitely delayed. No further assistance is needed at this time; therefore, the project is closed until such time as the company requests additional assistance.

Project 663: Assistance to a garment manufacturer in Bacon County

Nature of Problem: This firm was experiencing a very high labor turnover rate and requested assistance in recruiting and maintaining a stable work force.

Work Performed: In a phone contact with the management of this firm, it was determined that an 87% turnover in the work force was experienced during the past six months. A visit was arranged to this plant for the purpose of surveying and evaluating the current situation prior to formulating recommendations on how to overcome the problem. A letter report has been prepared and forwarded to the company. Assistance in implementing the changes in personnel policies recommended in the IDD report is under way, and improvements have already been realized.

Results: This firm is making good progress in resolving its problems with high labor turnover and recruiting. No further assistance is needed; therefore, the project is closed.

Project 702: Assistance to individuals interested in electric motor rewinding in Clinch County

Nature of Problem: Two individuals have requested IDD assistance in performing a market study to determine the demand for motor rewinding and electric motor servicing within the Homerville, Georgia, area.
Work Performed: In a visit to Homerville, this proposed new venture was discussed with the principals and representatives of the Clinch County Industrial Authority. It was determined during this visit that the first step in such a venture would be a survey of the market for motor rewinding and electric motor servicing.

Results: The results of the market study indicated an annual demand of approximately $7,000 for motor rewinding in the area; therefore, such a venture would not be feasible.

Ongoing Projects

There are now three projects under way in this area.

Project 678: Assistance to an abattoir in Bacon County

Nature of Problem: This firm wishes to expand into the institutional food market by establishing a facility for preparing portion-controlled meats. IDD assistance has been requested in evaluating the institutional foods market and in the preparation of a financing proposal for such an expansion.

Work Performed: The IDD staff has prepared a market study of the institutional foods market in Georgia. Assistance is also being rendered in the collection of information on processing methods and equipment needed for the production of portion-controlled meats. Upon completion of the planning for their expansion, company officials have requested that IDD assist them in evaluating various sources of financing for the expansion. In a meeting between IDD staff members, representatives of the local bank, local development authority representatives, and company officials, it was determined that the most appropriate method of financing this expansion would be an SBA 502 loan. Assistance is being rendered in developing an application for this SBA loan.

Results: The project is continuing.

Project 688: Assistance to a candy company in Waycross, Georgia (Growth Center)

Nature of Problem: The owner of this company requested IDD assistance in finding a supplier of automated packaging equipment for use in packaging candy.

Work Performed: In a visit to this company, the IDD staff obtained detailed information on the packaging equipment needed. Based on the information obtained, parameters were established which must be met by the automated equipment being sought. Several potential suppliers of such equipment have been contacted, and information on their products requested.

Results: The project is continuing.
Project 690: Assistance to a wood products manufacturer in Coffee County

Nature of Problem: This firm requested IDD assistance in evaluating the feasibility of diversifying its product line. One product under consideration is wooden reels for wire storage.

Work Performed: In a visit to this company, the IDD staff determined that assistance would be needed in locating sources of supply, collection of market information, evaluation of production equipment needed, and identification of potential suppliers of such equipment. Work has begun on locating sources of supply for the materials needed for the production of wooden wire reels. Information on various types of equipment needed for wooden reel production is also being collected. As a result of this diversification, this company is in the process of expanding its plant by 16,500 square feet and is increasing its work force of 22 employees.

Results: The project is continuing.
General

The Southwest Georgia Economic Development District consists of 13 counties, of which nine are eligible Redevelopment Area counties: Baker, Calhoun, Grady, Lee, Miller, Mitchell, Seminole, Terrell, and Worth. The Growth Centers are Albany (Dougherty County) and Bainbridge (Decatur County).

Discontinued Projects

During the period five projects were discontinued.

Project 619: Assistance to an individual in Lee County

**Nature of Problem:** An individual interested in establishing a pecan shelling plant in Lee County requested information on financing such a venture through SBA.

**Work Performed:** Background information required for the preparation of an SBA loan application was collected. A consulting firm in Marietta, Georgia, which had been assisting this new venture, was contacted in order to secure its cooperation. Plans and specifications for the building, machinery, and equipment were developed in anticipation of successfully securing SBA financing for this venture. The Leesburg Development Corporation was contacted by company officials and agreed to cooperate in requesting an SBA community development loan for the purpose of building a facility to house this company's operation. It is anticipated that initial employment will be 100 people with a total project cost of approximately $500,000.

**Results:** This individual has decided to delay this new venture for approximately one year; therefore, no further assistance is needed at this time.

Project 639: Assistance to a new cotton gin venture in Lee County

**Nature of Problem:** The principals of a proposed venture requested IDD assistance in their efforts to buy and modernize a cotton gin in Smithville, Georgia.

**Work Performed:** As a result of several meetings with the principals to review their plans, the IDD staff recommended that they seek an SBA 502 loan. The necessary information for their loan application was being collected.

**Results:** The principals of this proposed new venture have not collected the information needed for a loan application and have lost interest in pursuing the venture. The project is closed.

Project 649: Assistance to an individual in Albany, Georgia (Growth Center)

**Nature of Problem:** An individual requested IDD assistance in establishing a manufacturing facility for the manufacture of motorcycle trailers.
Work Performed: Based on this individual's preliminary trailer design, assistance was rendered in finding suppliers of the component parts. A list of potential suppliers was compiled and supplied to this individual. Information was also collected and provided to him on the safety requirements which must be met by a motorcycle trailer.

Results: Based on the prices of the components, this individual has determined that the profit potential of such a product is highly questionable and, therefore, he has decided not to pursue this new venture. The project is closed.

Project 661: Assistance to a new venture in fiber glass boat manufacturing in Calhoun County

Nature of Problem: An individual interested in establishing a manufacturing facility to produce fiber glass boats requested IDD assistance in establishing such an operation.

Work Performed: Assistance was given in collecting technical information regarding fiber glass fabrication and in making financial projections on the financing needs of this new venture. Technical information collected by IDD was forwarded to the principal for use in planning the new facility. Information was also supplied to this individual regarding a fiber glass plant which is for sale in a neighboring county.

Results: The principal of this proposed new venture in the manufacturing of fiber glass boats has advised IDD that he is indefinitely delaying a decision on this venture due to the uncertainties caused by the energy shortage. He expressed his appreciation for the assistance rendered by IDD and asked that the project be closed.

Project 664: Assistance to a mobile home manufacturer in Mitchell County

Nature of Problem: This firm is currently producing 20 mobile homes per week and requested IDD assistance with planning an expansion of the plant to enable it to achieve a 40-unit-per-week production rate.

Work Performed: A meeting was held with the plant manager and the plant engineering staff to review their plans and to determine the problems to be overcome in the planned expansion. The information needed to begin work on a plant layout for the expanded plant was collected by company management and forwarded to IDD. The major problem to be overcome in planning this expansion is the limited space available at the present plant site. Efforts are now under way to acquire some land adjacent to the plant site. Work has been completed on the preparation of an operations chart and plant layout for the expansion of this plant. Prints of these plans have been presented and explained to the management of the company. Implementation of these expansion plans will be made as soon as the adjacent land can be acquired.

Results: This firm has replaced the general manager and recent contact revealed that the expansion plans have been abandoned due to economic conditions. No further assistance is needed; the project is closed.
Ongoing Projects

There are now six projects under way in this area.

Project 670: Assistance to a metal products manufacturer in Grady County

Nature of Problem: This firm has requested IDD assistance in determining the market potential of a new type truck bumper which has recently been developed and produced on a pilot scale. Assistance has also been requested in planning for the capital investment necessary for plant expansion and new equipment to manufacture this new product.

Work Performed: Data were collected for a market study on the market for truck bumpers, including information on distribution patterns common to similar products. The completed market study on truck bumpers has been forwarded to this firm for its use in planning. Assistance is also being rendered in analyzing the capital investment requirements for the introduction of this new product. Due to a tremendous increase in orders for this company's gasoline tanks, company officials have decided to de-emphasize the development of the new line of truck bumpers. Information is now being collected on plastic lining material which could be used in the production of gasoline cans.

Results: The project is continuing.

Project 683: Assistance to a new venture in pecan processing in Lee County

Nature of Problem: An individual interested in establishing a pecan shelling operation requested IDD assistance in preparing the information needed to secure bond financing.

Work Performed: Upon IDD's recommendation, this individual contacted two bond underwriting firms and selected one of these firms to handle the bond issue. IDD is now assisting this individual in developing information needed to support a financial proposal for use by the bond underwriting firm. Due to currently high interest rates, the underwriting firm has advised against issuing bonds at this time. The principals are investigating other means of financing this venture.

Results: The project is continuing.

Project 684: Assistance to an agricultural equipment manufacturer in Decatur County

Nature of Problem: Due to expanded sales and the addition of a new product line, this firm has outgrown its present manufacturing facility. IDD assistance has been requested in planning an expansion of the existing plant and in developing a plant layout for the expanded plant in order to achieve an efficient work flow.

Work Performed: Information needed for the development of expansion plans and plant layout design has been requested from company officials. In connection with this plant layout work, IDD has collected and provided to
this company information on paint drying booths and inventory and production control systems. Construction is now under way on an expansion of 20,000 square feet to the existing plant building.

Results: The project is continuing.

Project 692: Assistance to a tool and die firm in Albany, Georgia (Growth Center)

Nature of Problem: This Florida firm requested IDD assistance in collecting information relative to the need for a tool and die shop in Albany. If there is sufficient need for such a shop, this firm plans to set up a branch facility in Albany.

Work Performed: The company has been supplied a copy of a 1967 Directory of Tool and Die Shops in Georgia and work is under way to update this information on the Albany area of the state. Several industrial concerns in Albany are being contacted to determine their tool and die needs.

Results: The project is continuing.

Project 700: Assistance to a wood products manufacturer in Albany, Georgia (Growth Center)

Nature of Problem: This firm now manufactures roof trusses for the mobile home industry and wooden mattress frames for mattress manufacturers. IDD assistance has been requested in investigating the feasibility of further diversification into wood pallet manufacturing.

Work Performed: A market survey of the market for pallets within 150 miles of Albany, Georgia, has been conducted and summarized in a report to this company. Information has also been supplied on pallet designs used by various industries and typical prices and volume purchasing arrangements commonly used. Based on the information provided by IDD, this firm has decided to begin producing wooden pallets as soon as equipment can be obtained.

Results: The project is continuing.

Project 706: Assistance to an individual interested in developing a new food store concept in Albany, Georgia (Growth Center)

Nature of Problem: This individual has requested IDD assistance in planning a production facility similar to a mobile home manufacturing operation. He has developed and built a prototype of a relocatable food service store and plans to begin producing a similar unit as soon as financing can be arranged for a new plant.

Work Performed: Arrangements have been made for this individual to visit several mobile home manufacturing plants in the Albany area. He has also been put in contact with the owners of a closed mobile home manufacturing plant since he may possibly be interested in buying this facility.
Assistance is also being rendered in preparing the information needed for an SBA 502 loan application.

Results: The project is continuing.
General

The Middle Flint Economic Development District consists of eight counties, of which six are eligible Redevelopment Area counties: Dooly, Macon, Marion, Schley, Taylor, and Webster. The Growth Center is Americus (Sumter County).

Discontinued Projects

During the period four projects were discontinued.

Project 614: Assistance to a utility building manufacturer in Taylor County

Nature of Problem: This firm has been in business only a short time and is presently operating in a 7,000 square foot leased facility. The sales have grown to the point that the company must now lease a larger building in order for production to meet the sales level. Assistance has been requested in making an application to SBA for a loan to finance this move.

Work Performed: Information, which included general information, cash flow, and pro forma financial statements, was collected for the loan application. The SBA loan application was completed and submitted for approval. We were informed by the SBA representative that the loan was approved in the amount of $50,000. There was a temporary delay in disbursement of the funds under the approved SBA loan due to technicalities. The principals were assured that there was no problem with the loan and they proceeded with the move to a larger facility. IDD has developed a suggested cost accounting system for this company. This system has been discussed and explained to the bookkeeper and has been implemented. As a result of the successful implementation of the cost control system, other simple management tools (e.g., breakeven point analysis, cash budgeting, sales forecasting, production forecasting) have been explained and discussed with company officials and implementation of these tools is being undertaken. The principals have recently informed IDD that arrangements have been completed for meeting their financing needs without SBA participation. Assistance has been requested in this company's efforts to secure certification of its units from the State of Georgia Fire Marshal. Detailed information on the requirements which must be met for such certification has been provided to the company.

Results: Since obtaining adequate financing, this firm has stabilized its operation and has expanded its work force from four to eight employees. No further assistance is needed at this time. The project is closed.

Project 635: Assistance to a furniture manufacturing company in Schley County

Nature of Problem: The president of this venture requested IDD assistance in developing plant layout plans for a new 25,000 square foot manufacturing
plant in Ellaville, Georgia. This new plant was to be constructed due to the damage to their existing plant building by an extremely heavy snow fall.

Work Performed: Preliminary discussions were held on the production requirements for the new facility. IDD staff requested that the company collect and provide additional information prior to undertaking the plant layout design. Information was provided on OSHA plant safety requirements to be met by this plant in its new facility. The new plant facility is completed and has been occupied. Company management has requested additional assistance in production planning and work station design for this new plant as well as layout and planning for an addition to this new building which they are planning to construct in the immediate future.

Results: This company has now completed the new plant and is in full production. The new facility is a 30,000 square foot facility and estimated capital expenditure, including new machinery, is approximately $200,000. Employment is presently 30. No further assistance is needed; the project is closed.

Project 653: Assistance to an individual in Macon County

Nature of Problem: An individual who owns a large acreage of pecan orchards requested IDD assistance in planning, designing, and financing a pecan shelling operation for his own orchards as well as for other growers in the area.

Work Performed: Information needed to evaluate the technical and economic factors in this new venture is being collected. A machinery list for the proposed plant has been drawn up and price quotes are being solicited from equipment suppliers. Information on the market for shelled pecans and data on the availability of raw pecans for shelling in the area have been collected and compiled into a report. This market study has been delivered to the individual for his use in planning this new venture.

Results: Due to several factors, such as high interest rates and uncertain prospects for next year’s pecan crop, this individual has indefinitely postponed this new venture.

Project 662: Assistance to a new venture to establish a grain storage facility in Sumter County

Nature of Problem: The representative of a group of investors interested in establishing a storage and processing facility for wheat, corn, and soybeans requested IDD assistance in evaluating the feasibility of such a venture.

Work Performed: A visit has been made to the proposed site for the facility (160 acres with rail siding) in order to discuss the strong and weak points of the site with the investors. Contacts are being made with the Agribusiness Council of the Georgia Department of Agriculture, the
University of Georgia Agricultural Marketing Service, and the U. S. Department of Agriculture Crop Reporting Service in order to secure information on the need for the planned facility in the area being considered. A representative of the University of Georgia Extension Marketing Service has collected the information needed to determine the feasibility of establishing this planned venture based on availability of the agricultural commodities in the area and the demand for these commodities in the area.

Results: The report developed by the University of Georgia Extension Marketing Service advised that the establishment of the proposed venture could not be justified on the existing market demand in the area. The principals have decided not to pursue this venture; therefore, the project is closed.

Ongoing Projects

There are now five projects under way in this area.

Project 676: Assistance to a development group in Dooly County

Nature of Problem: This development group has requested IDD assistance in determining whether to use a 35-acre site in Vienna, Georgia, for commercial or industrial use.

Work Performed: A visit was made to the site by two IDD staff members, and information on the site was collected during this visit. A report detailing the advantages and disadvantages to industrial versus commercial development of the site has been prepared and forwarded to the development group. This development group has now decided on commercial development of the site, and efforts have begun in developing a feasibility study on the proposed shopping center.

Results: The project is continuing.

Project 679: Assistance to a garment manufacturer in Taylor County

Nature of Problem: This sportswear manufacturer requested IDD assistance in securing financing for a plant expansion which would increase employment by thirty (30) employees.

Work Performed: In meetings with company management, it was determined that an SBA 502 type loan would be the most logical source of financing for this plant expansion. Contact has been made with representatives of the local development group and they have indicated that the local development corporation would make the 502 loan application. Information needed for the application was assembled by company officials with the assistance of the IDD staff.

Results: The project is continuing.
Project 697: Assistance to an individual interested in establishing a tool and die shop in Webster County

Nature of Problem: An individual interested in establishing a new venture in machinery repair and tool and die manufacturing requested IDD assistance in securing financing for such a venture.

Work Performed: Work has been initiated in the preparation of an SBA loan application including the preparation of market information and pro forma financial statements. SBA has reviewed this application and has requested additional information. SBA approval is expected soon after this additional information is submitted.

Results: The project is continuing.

Project 703: Assistance to a utility building manufacturer in Taylor County

Nature of Problem: The Georgia State Fire Marshal's office is requiring that this company's product be certified under the present code. IDD assistance has been requested by company management in bringing their unit up to the standards set forth in the code.

Work Performed: In a visit to this firm's plant, specific suggestions were made on changes required to meet code standards. The company is now in the process of implementing these changes and preparing scaled drawings of the product. The drawings will be used in acquiring certification from the State Fire Marshal's office.

Results: The project is continuing.

Project 704: Assistance to a medical therapist group in Schley County

Nature of Problem: Two individual medical therapists requested IDD assistance in evaluating the potential of establishing a clinic in Ellaville, Georgia, to distribute medical appliances and to provide enterostomal therapist services.

Work Performed: A survey of hospitals in the area surrounding Ellaville has been made to determine the need for such products and services. This survey indicates a very small number of individuals needing such a clinic. These findings are being incorporated in a letter report to these individuals.

Results: The project is continuing.

-42-
General

The Chattahoochee-Flint Economic Development District consists of nine counties, of which three are eligible Redevelopment Area counties: Heard, Meriwether, and Pike. The Growth Centers are Carrollton (Carroll County) and La Grange (Troup County).

Discontinued Projects

During the period three projects were discontinued.

Project 641: Assistance to an industrial development group in Pike County

Nature of Problem: A group of community leaders in Pike County requested IDD assistance in forming an economic and industrial development group.

Work Performed: Information regarding the organizations and working structures used by chambers of commerce and development authorities in Georgia was compiled and supplied to representatives of this community group for use in their planning. IDD representatives met with interested business and civic leaders to discuss the need, purpose, and operation of a local development authority. This group of community leaders was made aware of the need for an officially organized industrial development group and was assisted by IDD in evaluating the various ways of organizing such a group.

Results: The group has now decided upon the chamber of commerce form of organization. Sample bylaws and other guidance and assistance were provided by IDD in the formation of this new chamber of commerce. No further assistance is needed; the project is closed.

Project 648: Assistance to an individual in La Grange, Georgia (Growth Center)

Nature of Problem: This individual had requested IDD assistance in evaluating the feasibility of developing a marina on a site to be leased from the U.S. Corps of Engineers at the new West Point reservoir.

Work Performed: Information was collected and provided to this individual on marina operations and hotel-motel operations. Several meetings were held with the operators of existing marinas in order to discuss various aspects of this type of business.

Results: The principal of this new venture has decided not to proceed due to the high capital investment required and the limited potential profit of such a venture. The project is closed.
Project 686: Assistance to a development group in La Grange, Georgia
(Growth Center)

Nature of Problem: This group has requested IDD assistance with determining the potential of increased timber utilization in the Chattahoochee-Flint River Basin area.

Work Performed: The IDD staff has developed a summary finding concerning the proposed increased timber utilization in the area. A meeting with representatives of this development group has been held in order to discuss these summary findings. Several potential uses for the area's timber resources were suggested in this meeting. A report entitled "A Brief Look at the Potentials of Increased Timber Utilization in the Chattahoochee-Flint APDC Area" was prepared by IDD and provided to this group for use in planning.

Results: Further assistance is pending a decision on the part of the development group on which of the alternatives mentioned in the report should be pursued.

Ongoing Projects

There are now no projects under way in this area.
General

The Coastal Area Economic Development District consists of six counties, of which four are eligible Redevelopment Area counties: Bryan, Camden, Long, and McIntosh. The Growth Centers are Brunswick (Glynn County) and Hinesville (Liberty County).

Discontinued Projects

During the period no projects were discontinued.

Ongoing Projects

There are now no projects under way in this area.
General

The Lower Chattahoochee Economic Development District consists of seven counties, of which five are eligible Redevelopment Area counties: Clay, Early, Quitman, Randolph, and Stewart. The Growth Center is Columbus (Muscogee County).

Discontinued Projects

During the period no projects were discontinued.

Ongoing Projects

There is now one project under way in this area.

Project 699: Assistance to a development group in Columbus, Georgia (Growth Center)

Nature of Problem: Two individuals interested in building a convention facility in Columbus, Georgia, requested IDD assistance in determining the feasibility of such a project.

Work Performed: A meeting has been held with the two principals in order to secure detailed information on the plans for establishing a convention center in Columbus, Georgia. Based on information secured in this meeting, work has begun in collecting data on other convention centers in order to determine the feasibility of the project.

Results: The project is continuing.
PROJECTS OUTSIDE OF ECONOMIC DEVELOPMENT DISTRICTS

General

During the period twenty-two projects were active in counties outside of the Economic Development Districts.

Discontinued Projects

During the period fourteen projects were discontinued.

Project 630: Assistance to an individual in Cherokee County

Nature of Problem: An individual holding a patent on an automatic welding hood with automatically positioned eye shield requested IDD assistance in determining the best method of exploiting his patent.

Work Performed: Assistance was rendered in determining the best method for marketing a product based upon this individual's patent. Information was collected pertinent to the advantages of establishing a plant to manufacture the product versus subcontracting the manufacture of the product and marketing under a private brand.

Results: This individual is no longer interested in pursuing the development of a product based on his patent; therefore, the project is closed.

Project 637: Assistance to an industrial development group in Cherokee County

Nature of Problem: The chairman of this industrial development group has requested IDD assistance in developing plans for a 100-acre industrial park adjacent to the Canton airport.

Work Performed: IDD staff members have visited the proposed site for the industrial park and have discussed with representatives of the development group the information needed to develop a park layout and site brochures. Assistance was secured from the USDA soil conservation office, railroad companies, water departments, and chambers of commerce. The Federal Aviation Agency was also contacted to determine the restrictions, if any, on the development of the proposed site since it is located adjacent to an airport.

Results: The site brochure for this new industrial park has been completed and delivered to the development group. In recent contacts with this development group, it was learned that one plant has already located in the industrial park and another company is expected to locate in the industrial park in the very near future. No further assistance is needed at this time; the project is closed.
Project 645: Assistance to a farm equipment manufacturer in Appling County

Nature of Problem: The principals of this farm equipment manufacturing company are interested in expanding their business to double the plant size and employ 10 additional employees in welding and metalworking. They requested that IDD assist them in reviewing their present operation, preparing a plant layout of work areas and product flow, and consulting with them during the expansion of their plant.

Work Performed: A floor plan of the existing buildings was obtained from the company and various approaches to the new plant layout were discussed with company officials. Preparation has begun on a new plant layout of the expanded production area. Information has also been compiled and provided to company officials on inventory control procedures. Construction has been completed on the expansion to this plant and assistance has been given in the selection of equipment and in securing sources of supply for raw materials.

Results: Construction of the plant expansion has been completed, and the company has implemented the plant layout provided by IDD. No further assistance is needed; the project is closed.

Project 652: Assistance to a box manufacturer in Floyd County

Nature of Problem: This firm was experiencing declining sales in the primary product line of small rigid boxes and requested IDD assistance in diversifying the product line in order to increase sales volume.

Work Performed: The potential market for partition boards for boxes is being investigated as a possible new product for this company. Assistance was also given in improving production methods through utilization of new types of raw materials. Based on an analysis of market conditions, it has been determined that a diversification into folding cartons represents the best chance for success for this company. A letter report summarizing these findings was forwarded to company officials.

Results: Due to the closing of a competitor's plant, this company has experienced an increase in orders for set-up type boxes and has abandoned plans for diversification. No further assistance is needed; the project is closed.

Project 654: Assistance to a garment manufacturer in Paulding County

Nature of Problem: This firm is currently operating under extremely crowded conditions in the current production space of 8,000 square feet. IDD assistance was requested in planning an expansion of this plant in order to overcome the crowded working conditions.

Work Performed: An IDD staff member met with the plant manager to review the requirements to be met by the plant expansion and to collect
other information needed to prepare a proposed new layout. A plant layout of the proposed expansion was prepared and reviewed with the plant manager. Information was also collected on electrical loads and lighting requirements for this expansion.

Results: The plant manager was very pleased with the plant layout for the proposed plant expansion; however, due to the high interest rates, he has decided to delay the expansion indefinitely. The project is closed.

Project 658: Assistance to an inventor in Cobb County

Nature of Problem: The inventor of a patented carpet manufacturing process requested IDD assistance in preparing a business plan for a new venture in carpet manufacturing which would use equipment based on his patent.

Work Performed: Several meetings were held with this inventor to determine the best approach to use in the business plan in order to protect his patent rights and at the same time to make the plan attractive to investors. A draft of the business plan was prepared, including preliminary cash flow projections. This draft has been reviewed by the inventor and his financial advisors and has been revised by the IDD staff.

Results: The business plan for this new venture was supplied to this inventor for his use in negotiations with potential investors. No further assistance is needed at this time.

Project 666: Assistance to a metalworking company in Polk County

Nature of Problem: In addition to operating a metalworking-job shop, this company also manufactures rubber molds for the costume jewelry industry. IDD assistance was requested in evaluating the feasibility of distributing these rubber molds directly to the customer rather than using distributors as is the current practice.

Work Performed: In a meeting with the owner of this company, it was learned that the rubber molds can also be used to make small machine parts. In order to explore the possibilities of developing a substantial market for the rubber molds for use in producing machine parts, a list of potential customers has been prepared by IDD for the company to use in its sales efforts.

Results: Based on the information supplied by IDD, the owner of this company has hired a salesman and is developing new business in the manufacturing of small machine parts for the textile industry. No further assistance is needed; the project is closed.

Project 668: Assistance to a metal and plastic container manufacturer in Douglas County

Nature of Problem: IDD assistance was requested in preparing a plant layout for a new 65,000 square foot plant to be located near Douglasville, Georgia.
Work Performed: Information needed to design a plant layout for this company's new plant has been requested from company management. Work on the plant layout design will be initiated as soon as the needed information is available.

Results: The principals in this company have been unable to reach a decision on whether or not to build this new facility; therefore, the project is closed.

Project 672: Assistance to a lawn mower manufacturer in Henry County

Nature of Problem: This company has requested IDD assistance with a vibration problem in a riding lawn mower in order to lower noise levels and meet consumer protection standards.

Work Performed: IDD staff efforts were directed toward reducing the noise generated by the mower's engine through redesigning the engine mounting.

Results: Due to a lack of cooperation from this company, the project is closed.

Project 675: Assistance to an individual interested in brick manufacturing in Gilmer County

Nature of Problem: An individual interested in entering the manufacture of sand-lime bricks requested IDD assistance in collecting information on the process and market for such bricks.

Work Performed: Information on the process for producing sand-lime bricks was collected and forwarded to this individual for his information. Additional information on the market for bricks in the southeastern United States was also provided to this individual.

Results: No further assistance is needed at this time; therefore, the project is closed.

Project 677: Assistance to a metal fabricating company in Haralson County

Nature of Problem: The president of this firm requested IDD assistance in improving material flow and in reducing the end-process handling of materials in his plant.

Work Performed: In a visit to this firm, measurements of the existing facilities were taken, and other information needed to develop an improved plant layout was collected. A proposed plant layout design was developed and provided to the company for evaluation.

Results: Work has been started on an expansion of the existing building in order to implement the improved plant layout design prepared by IDD. Two additional pieces of production equipment have been installed. No additional assistance is needed; the project is closed.
Project 681: Assistance to a new venture in motorcycle manufacturing in Cobb County

Nature of Problem: The developer of a new type motorcycle based on a patented frame of unique design requested IDD assistance in determining the best method of marketing his new product.

Work Performed: It has been determined that the most appropriate method of introducing a new type motorcycle would be to undertake a manufacturing operation to produce the motorcycle on a limited production scale. Efforts are now under way to secure financing for such a venture.

Results: Due to this individual's inability to secure financial backing for this new venture, the project is being closed.

Project 682: Assistance to a manufacturer of prefabricated houses in Polk County

Nature of Problem: This firm has recently converted its production from mobile homes to prefabricated houses and housing components (windows, doors, etc.). IDD assistance has been requested in improving the plant layout in order to improve efficiency and material flow.

Work Performed: In a meeting with company officials, it was discovered that uncertainties existed regarding the product mix to be produced. As soon as more definite production plans are formulated, work will begin in developing an improved plant layout design.

Results: The owner of this plant has decided to close the plant and reopen when the residential construction market improves.

Project 685: Assistance to a wallcovering manufacturer in Henry County

Nature of Problem: This manufacturer of mirror wall tiles requested IDD assistance with a production problem in the coating process used.

Work Performed: In a visit to the company, it was determined that the problem being experienced was caused by the paint peeling off of the product. An investigation is under way by technical experts in EES to determine the cause of this problem.

Results: The problem of flaking and peeling of the coating for this product was determined to have been caused by inadequate cleaning prior to application of the coating. Several possibilities for better cleaning were suggested, and the company is now consulting with their equipment supplier to determine which of the suggested methods would be most compatible with existing equipment.
Ongoing Projects

There are now eight projects under way in this area.

Project 642: Assistance to a wine manufacturing company in Crawford County

Nature of Problem: Due to this firm's diversification into processing fruits other than peaches, it anticipates operating in the winter months and has requested assistance in evaluating the feasibility of using fuels other than natural gas in order to avoid production problems during periods of natural gas curtailments.

Work Performed: Information was collected on the availability and cost of alternate fuels and was provided to company officials for their use in evaluating the feasibility of switching to such fuels. Based on information supplied by IDD, this company has decided that converting its boiler to No. 2 fuel oil would be the least cost alternative to solving its winter fuel problems.

Results: The project is continuing.

Project 667: Assistance to an industrial development group in Crawford County

Nature of Problem: A newly formed economic development group in Crawford County requested IDD assistance in determining what types of businesses might best fit the resources available in Crawford County.

Work Performed: Meetings have been held with county commissioners and representatives of the local development group in order to define the objectives of the project and to gather information on the area. Efforts are continuing in the collection of information on local resources, and an analysis of the resources as they relate to industrial and economic development has been initiated.

Results: The project is continuing.

Project 673: Assistance to a box closing equipment manufacturer in Jones County

Nature of Problem: This firm has requested IDD assistance in resolving a problem with the glue application components of its machinery.

Work Performed: The IDD staff has undertaken a search for a supplier of glue application mechanisms which could be used in this company's machinery. Information has been supplied to this firm from several equipment suppliers. Assistance is now being provided in planning an expansion of the production facilities of this company.

Results: The project is continuing.
Project 689: Assistance to a new venture in charcoal manufacturing in Tattnall County

Nature of Problem: A group of individuals interested in establishing a manufacturing plant in the Reidsville area to convert wood wastes into bulk charcoal and charcoal briquets has requested IDD assistance in determining the feasibility of such a venture.

Work Performed: In meetings with these individuals, it has been determined that the pivotal question to resolve is the availability of sufficient wood residues in the area to support such a venture. All firms in the area which may have wood waste which could be available to this new charcoal manufacturer have been surveyed and the results are being tabulated and included in a report to this group.

Results: The project is continuing.

Project 691: Assistance to an individual interested in brick manufacturing in Fannin County

Nature of Problem: An individual in Fannin County has requested IDD assistance in investigating the feasibility of manufacturing bricks.

Work Performed: A market study on the potential market for bricks in the area surrounding Fannin County has been initiated. Information is also being collected on the availability of a plant site with an adequate supply of clay for brick manufacturing.

Results: The project is continuing.

Project 696: Assistance to a development group in Douglas County

Nature of Problem: This development authority is in the process of acquiring approximately 250 acres of land for an industrial park. IDD assistance has been requested in designing and planning this industrial district.

Work Performed: Work has been initiated in assembling the materials needed to develop a park layout and site flyer. A field inspection of the site has been made and information needs were determined at that time. Efforts are now under way to collect the needed information for planning this industrial park.

Results: The project is continuing.

Project 701: Assistance to a pipe service company in Cobb County

Nature of Problem: This company inspects, cleans, and repairs large sewer lines. The owner is in the process of moving his operation to a new
building and has requested IDD assistance in designing a layout for the new building and in securing financing for the move.

Work Performed: In a meeting with the owner of this company, information on the dimensions of the planned building was secured in order to develop a layout. Assistance was also given in developing the information needed for a loan application to SBA. This loan has been approved by SBA, and construction of the new facility has been started.

Results: The project is continuing.

Project 707: Assistance to an individual in Effingham County

Nature of Problem: This individual is interested in establishing a hot-dip galvanizing operation in Effingham County. IDD assistance has been requested in studying the feasibility of starting such a venture.

Work Performed: In cooperation with this individual, IDD is developing information in the following five areas: (1) market potential for hot-dip galvanizing in the surrounding area; (2) capital requirements for a plant and equipment; (3) plant site's requirements; (4) fuel requirements for galvanizing operation; and (5) environmental impact considerations.

Results: The project is continuing.
V. EVALUATION OF PROGRAM EFFORT

In drawing conclusions about the program, it would not be difficult to overstate the impact of the work performed by IDD staff personnel on the individual projects; however, available information indicates some noteworthy results in the area of employment and jobs affected. A total of approximately 801 identifiable jobs have been saved in 16 firms assisted by IDD. Another 827 identifiable jobs have been created in 30 expanding companies which were assisted. In the 28 new ventures which were aided by IDD during the period, 295 new jobs either are being created or show definite promise of early establishment.

Conclusions regarding the overall impact of this program must be based upon a collective evaluation of the individual projects and their respective results. This evaluation should include not only a recognition of the fact that a deliberate attempt has been made to state the significance of IDD efforts in realistic terms, but also a consideration of the following special points concerning the results reported:

1. In many cases, the contributions of IDD staff personnel were major factors in management decisions to act or not to act on a specific plan of development. This was particularly true in those cases involving the development of new ventures.

2. In some situations, the end result would have been the same regardless of IDD participation. In such cases, IDD staff personnel helped to facilitate the achievement of an already determined goal.

3. In certain projects, IDD staff personnel filled a negative role by determining that a proposed course of action was not economically sound. The project staff felt that such actions, where they were taken, were in the best interests of all parties in the project. It is not enough to provide support for sound proposals; the unsound ones also must be identified.

Because of the preceding considerations, it is not practical to attempt to quantify results of this type program solely in terms of jobs created. Further, since it was the first program of its kind in a state-supported university, it is impossible to judge its merit on a comparative basis. It is necessary, therefore, to evaluate the program by empirical means. Several observations indicate that the management and technical assistance program to business and industry in Georgia has been beneficial:

1. After a modest start, the program has grown both in quantity of projects and in the comprehensiveness of the assistance offered. The program has been well received throughout Georgia and is being supported by the firms that have been assisted.

2. Consultants of all types have been kept apprised of Georgia Tech's management and technical assistance efforts and have worked in conjunction with IDD to further the program. All parties concerned seem to feel that the program is mutually beneficial.
3. Success of the original program has led to expansion of the project by the U. S. Department of Commerce's Economic Development Administration in Georgia and initiation of comparable programs by agencies in other states.

4. As a result of previous M&TA experience, IDD personnel provided counsel to the federal government in an effort to bridge the gap between the accumulated findings of governmental, education, and private research and the information needs of business and industry. This counsel eventually resulted in the passing of the State Technical Services Act of 1965.
EXHIBITS
WARD, WILLIAM C., JR.--Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1940
Command and General Staff College, Fort Leavenworth 1953
Senior Course, Marine Corps Schools 1956
Management School, Fort Belvoir 1961

Employment History

Southern Mercerizing Company, Supervisor 1932-1939
China Grove Cotton Mills, Foreman 1940
U.S. Marine Corps, Colonel 1940-1964
Dean Foods Company, General Manager 1964-1966
Georgia Institute of Technology
Research Scientist 1966-1971
Senior Research Scientist 1971-Present
Head, EDA Services Section, IDD, EES 1967-1970
Head, Applied Technology Group, IDD, EES 1970-1971
Head, Special Projects Branch, IDD, EES 1971-1972
Head, Industrial Services Branch, IDD, EES 1972-Present

Experience Summary: At Southern Mercerizing Company, performed at the supervisory level in mercerizing, skeining, coning, quilling, and shipping departments. Night superintendent of entire plant for one summer. At China Grove Cotton Mills, performed as foreman of carding department. In U.S. Marine Corps performed in various command and staff positions including: Chief of Staff, Third Marine Division -- supervised and coordinated entire general and special staff. Comptroller, Marine Corps Base -- staff responsibility for financial management, including accounting, budgeting, disbursing, data processing and financial administrative organization. Chief, Atomic Biological, and Chemical Section, Educational Center, Marine Corps Schools -- responsible for supervising and participating in instruction in Marine Corps Schools, Basic, Junior and Senior Courses. Industrial Relations Officer -- responsible for civilian personnel program including employment, employee relations, training, safety, payroll, and wage and classification divisions. As general manager of Dean Foods Company, managed and supervised management controls, purchasing, traffic, production and quality controls, personnel and all administrative functions. At Georgia Tech, directed IDD's overall operations in EDA matters; provided management and technical assistance to industry as required. Directed IDD's overall operations in Housing Resources matters and overall activities of Special Projects Branch. Presently directs the activities of Industrial Services Branch.

Current Fields of Interest

All aspects of management and technical assistance to industry.

Major Reports and Publications

Major Reports and Publications (continued)

9. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, March 1968, coauthor
11. "Economic Impact of Proposed Water and Sewerage System Improvements on Roberta, Georgia," EDA Special Report, April 1968, coauthor
12. "Impact of Proposed Sewer Improvements on the City of Waycross and Ware County," EDA Special Report, April 1968, coauthor
TAYLOR, HARDY S.--Assistant Head, Industrial Services Branch, Industrial Development Division, Engineering Experiment Station

Education

University of Alabama, B.S. Business Administration and Pre-Law 1943
Harvard Graduate School of Business Administration 1944
University of Nebraska, Graduate School of Business Organization 1951
Defense Department Comptrollership School, Washington, D. C. 1955

Employment History

National Southern Products, Inc., Tuscaloosa, Alabama, Research Assistant 1943
Turco Products, Inc., Atlanta, Georgia, Representative and Field Engineer 1943-1964
U.S. Navy, Supply and Fiscal Officer/Comptroller 1964-1966
Gladwin Industries, Inc., Atlanta, Georgia, Treasurer (Controller) 1966-1972
Georgia Institute of Technology Research Scientist 1972-Present
Senior Research Scientist 1972-Present
Head, Management and Technical Assistance Section 1968-Present
Head, EDA Services Section 1970-Present
Assistant Head, Industrial Services Branch, IDD, EES 1970-Present

Experience Summary: As the Assistant Head of the Industrial Services Branch, is responsible for directing the overall IDD program of management and technical assistance and EDA services to Georgia industry. Served as treasurer of a locally-based national corporation, primarily a manufacturer for the telephone industry, and was responsible for accounting and financial management, office administration and sales maintenance services, purchasing, customer relations and local sales, personnel administration, print shop operations and sales catalog maintenance. Served as a member of the board of directors of several corporations with national and international sales distribution. In 1964 completed twenty years in U.S. Navy as top departmental executive with experience in all phases of business and financial management with special emphasis on Controllership, which consisted of budgeting and internal auditing; and Supply and Fiscal operations consisting of: accounting and payroll, office administration and personnel management and training, procurement and contract negotiation and administration, inventory management, warehousing, traffic operations, quality control, industrial safety, and property disposal. Assisted in the development of, and in charge of implementation of, a new Inventory Management concept at the Naval Aviation Supply Office, which is the world wide inventory control point for all Naval Aviation spare parts and material. This concept was based on the maximum utilization of the latest Electronic Data Processing equipment and it resulted in the greatest advancement in the management of aviation material during the past several years. Served as Supply and Fiscal Office/Comptroller at several Naval Air Stations and directed a working staff of 75 to 300 civilian personnel. As the first U.S. Naval representative in Sicily, negotiated at the highest governmental levels in Sicily and in Rome in arriving
TAYLOR, HARDY S. -2- Biographical Sketch

at agreements and procedural methods for operation of a U.S. Naval Air Station. Additionally, recruited, interviewed, selected and hired the initial group of 100 civilian personnel. Also negotiated and approved contracts for procurement of equipment, supplies and services from European sources to provide complete support for a station population of 1,800 people. Developed the idea and published a catalog in connection with a Simplified Issue Procedure for General Stores Material. This idea has been further developed and is widely used throughout the Naval Supply System.

Current Fields of Interest

All phases of area development activity, including industrial and community development, financial and inventory management, and management development.

Major Reports and Publications

1. Published a catalog in connection with a Simplified Issue Procedure for General Stores Material
2. Author of numerous published company studies; procedural systems manuals; and operational plans
7. "Economic Impact of Proposed Water and Sewerage System Improvements on Warrenton, Georgia," EDA Special Report, September or December 1967
10. "Economic Impact of a Proposed Industrial Park to be Located In Swainsboro, Georgia," EDA Special Report, January 1968 (coauthor)
12. "Economic Impact of a Proposed Industrial Park to be Located in Milledgeville, Georgia," EDA Special Report, February 1968
16. "Economic Impact of a Proposed Industrial District to be Located in Richmond County, Georgia," EDA Special Report, May 1968 (coauthor)
Major Reports and Publications (continued)


BETHEA, EDWIN A. -- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education
B.S., Knoxville College 1953
M.S.W., Howard University 1962
Certificate of Completion, Howard University's Small Business Guidance Center 1969

Employment History
District of Columbia, Department of Public Welfare, Case-worker, Child Welfare Division 1962-1965
Far East Community Services, Inc., Community Organizer-Youth Community Organizer 1965-1966
United Planning Organization, Community Organization Specialist (training officer), Economic Development Specialist 1966-1968
Youth Enterprises, Inc., Executive Director 1968-1970
Volunteers for International Technical Assistance, Director-Washington, D.C.; Director-East Central Regional Office 1970-1972
Consultant Employers
Office of Economic Opportunity; Manpower Assistance Project Inc.; University Research Corp.; Xerox Corporation; Commerce Department, Economic Development Administration.

Georgia Institute of Technology, Research Scientist 1972-Present

Experience Summary: Directed a regional office for technical assistance that provided services to minority and economically disadvantaged groups in mid Atlantic region; this entailed establishing, structuring, and supervising new program offices in several states within the region.
Program developer for minority economic ventures and community development project; the responsibilities included establishing a working relationship with community groups, federal, state and local government agencies and/or private agencies whose interests were similar. Organized and managed a minority firm for the purpose of establishing "spin-off" business ventures and the training of minority entrepreneurs. Managed and developed programs aimed toward helping groups initiate and implement economic and social changes in their community such as employment practices, bureaucratic procedures, etc. Assisted quasi government and government department directors in community planning. Developed and directed programs relating to youth activities in the areas of training, proposal development, community improvement and change and economic developments.

Current Fields of Interest
Minority business development, industrial and community development, manpower management and motivation, transportation and new economic systems.

12/72
Georgia Institute of Technology

BIOGRAPHICAL SKETCH

CHIANG, TZE I.--Senior Research Economist, Industrial Development Division, Engineering Experiment Station

Education

B.A. in Agricultural Economics, Fukien Christian University 1946
M.S. in Agricultural Economics, Oklahoma State University 1955
Cornell University 1957 (Summer)
Ph.D. in Agricultural Economics, University of Florida 1958

Employment History

Junior high school teacher, Foochow, China 1946-1947
Chian Textile Industries, Inc. 1947-1953
Oklahoma State University, Graduate Assistant 1954-1955
University of Florida, Research Assistant 1955-1958
Georgia Institute of Technology
  Assistant Research Economist 1958-1962
  Research Economist 1963-1964
  Senior Research Scientist 1965-Present

Experience Summary: Began as a teacher in a junior high school in 1946.
Joined the China Textile Industries, Inc., in 1947, and rose gradually to the position of Assistant to the General Manager in 1953. At Oklahoma State University, accepted a graduate assistantship in collecting and analyzing data related to land value and the cattle business. Enrolled in the University of Florida in 1955 and was appointed Research Assistant, working on own dissertation in regard to a marketing study of Florida ferns. At Georgia Tech, has dealt mainly with feasibility studies on various industries which show potential as manufacturing opportunities in Georgia.

Current Fields of Interest

Manufacturing feasibility studies.

Major Reports and Publications

7. "Lumber and Wood Products, Furniture and Fixtures" (Studies of Selected Industries in the Southeast River Basins, Section 4), Georgia Tech Report, March 1961
Major Reports and Publications (continued)

11. "Evaluation of Agriculturally Oriented and Wood-Based Manufacturing Opportunities in Carroll County, Georgia," Georgia Tech Report, February 1964, coauthor
Georgia Institute of Technology

BIOGRAPHICAL SKETCH

DIAMOND, HARVEY--Senior Research Engineer, Industrial Development Division, Engineering Experiment Station

Education
St. Johns University 1941-1942
B.S. in Textile Engineering, North Carolina State College 1942-1946

Employment History
Cohn-Hall-Marx, Converter and Assistant Designer 1946-1947
American Woolen Company, Designer and Assistant Buyer 1947-1950
Dux Mixture Hardware Company, Partner 1950-1960
Georgia Institute of Technology 1960-1965
Assistant Research Engineer 1965-1967
Research Engineer 1967-Present
Senior Research Engineer 1967-Present

Experience Summary: Economic feasibility studies; plant location analyses; market research to identify manufacturing and nonmanufacturing business opportunities; raw materials and intermediate products availability studies; liaison with prospects on industrial location possibilities; evaluation and development of area resources; transportation studies; management and technical assistance to prospective and established business; product diversification studies; manpower resources; industrial economic analyses; purchasing and marketing of hardware, wholesale and retail; textile designing; textile converting. Coeditor of monthly metalworking bulletin.

Current Fields of Interest
Market analyses; plant location criteria; economic feasibility analyses.

Major Reports and Publications
Major Reports and Publications (continued)

12. "Mobile Homes in Georgia: A Study of the Personal Property Taxes Levied on Mobile Homes in the Metropolitan Areas of Georgia and the Significance of the Mobile Home Industry to the State," Georgia Tech Report, February 1965, coauthor


PARETS, GASTON A. -- Research Engineer, Management and Technical Assistance, Industrial Services Branch, Engineering Experiment Station

Education


Master of Business Administration, with emphasis in Economics, Finance and International Business and Trade. Georgia State University. 1968

Additional courses and seminars in Business, Management and Industrial Development. 1969-1970

Fluent in the Spanish and Portuguese languages.

Employment History

Johnson Controls, Inc., Coral Gables, Florida
Assistant Engineer and Technical Draftsman 1964-1966

Ford Motor Company, Automotive Assembly Division, Hapeville, Georgia
Process Engineer 1966-1967
Manufacturing Engineer "A" 1968-1970

Georgia Institute of Technology, Industrial Development Division, Engineering Experiment Station
International Branch 1970-1972
Industrial Services Branch 1972-Present

East-West Center, University of Hawaii, Honolulu, Hawaii
Research Fellow June-October 1972

Experience Summary: Has been associated with Georgia Tech since January of 1970. During the first three years, activities consisted in the preparation, implementation and follow-up of industrial development projects in Latin America, including the preparation of project proposals for presentation to private and public, national and international organizations. Activities in the international development field included three months of technical assistance to the Industrial Development Office of the University of Carabobo in Valencia, Venezuela, direct involvement in the U.S. AID-sponsored industrial development program of the Republic of Paraguay, and assistance to the Development and Productivity Center, a private consulting group, also in Paraguay. A result of these programs was the generation of a series of studies such as feasibility studies, community industrial profiles, training manuals, and other specialized studies. Another responsibility within the international area was participation in the preparation and conduct of a series of 12-week international development seminars, which are attended by Latin American professional developers and government officials.
With the Industrial Services Branch, responsibilities consist in the provision of management and technical assistance to small and medium size industries in Georgia and other southeastern states. During the period June-October 1972, was invited by the East-West Center at the University of Hawaii, to become part of a five-man study team which conducted a study on the economy, research institutions, and private industry in Indonesia in an effort to determine the feasibility of the establishment of an Industrial Technology Center in that country. This project required extensive travel in Indonesia and other Southeast Asian countries, and the results were formally presented in an International Conference on Adaptive Technologies at Honolulu, Hawaii, October 4, 5, and 6, 1972. While associated with Ford Motor Company, from July 1966 to January 1970, the prime responsibility was to ascertain that vehicles were assembled in the specified manner, and to supervise the building and installation of tools and equipment required for this purpose. This function required close coordination with such groups as Quality Control, Industrial Engineering, Plant Engineering and others. During the period from January 1964 to June 1966, worked with Johnson Controls, Inc., as a technical draftsman and assisted project engineers in projects related with the design and installation of heating and refrigeration automatic control systems.

Major Reports and Publications

3. "Industrial Profile of the City of San Felipe, Venezuela," University of Carabobo, Venezuela, 1971
4. "Pilot Study on the Generation and Diffusion of Adaptive Technology in Indonesia," Technology and Development Institute, East-West Center, Honolulu, Hawaii, October 1972, co-author
6. Market and feasibility studies in various industries, both in the United States and in Latin America.
POTTS, PHILLIP W. -- Research Scientist, Industrial Development Division, Engineering Experiment Station

Education

B.S. in Industrial Management, Georgia Institute of Technology 1962
M.B.A. in Marketing, Georgia State University 1968

Employment History

U. S. Army 1955-1958
Georgia Institute of Technology, Student 1958-1962
General Motors, Accountant 1962-1964
St. Regis Paper Company, Production Department Head, Sales Coordinator, Production Coordinator 1964-1972
Georgia Institute of Technology Research Scientist 1972-Present

Experience Summary: Served three years in U. S. Army Intelligence, traveling extensively throughout Europe. Employed by General Motors in accounting functions of payrolls, accounts payables, accounts receivables, and standard costing. Held various positions with St. Regis Paper Company from production department head to sales coordinator and production coordinator, being responsible for supervision of several hundred production personnel, quality control, production scheduling, inventory control, shipping and receiving efficiency, purchasing, customer service, and implementation of systems for changing production and financial records from manual calculation to EDP.

Current Fields of Interest

All aspects of industrial management, including market analysis, economic feasibility studies, and research in industrial development.

Major Reports and Publications

5. "An Examination of the Existing Commercial Market for Urethane Foam Structural Panels in the Southeast," Georgia Tech Report, July 1973, coauthor and project director
Major Reports and Publications (continued)

WOMMACK, CHARLES C.--Assistant Research Scientist, Industrial Development Division, Engineering Experiment Station

Education
B.S.I.M., Georgia Institute of Technology 1963

Employment History
A. O. White, Jr., Engineer, Draftsman 1960 (summer)
Daniel, Manning, Johnson and Mendenhall, Land Surveying 1961 (summer)
Great Books Inc., Salesman 1962 (summer)
Georgia Power Company, Merchandise Sales Representative 1963-1964
U. S. Army, Battalion Supply Officer (S-4) 1964-1966
Atlantic Company, Branch Manager (ice) 1966-1967
Georgia Institute of Technology 1967-Present

Experience Summary: Duties as a battalion supply officer included administering and supervising the unit motor pool and requisitioning all types of supplies for the support of the unit mission. Duties as Branch Manager with Atlantic Company included the day-to-day operation of an ice manufacturing plant, recruiting and training personnel, supervision of equipment and vehicle maintenance, sales promotion, customer relations, budgeting and cost control. Initial work at Georgia Tech was in connection with an economic development project in the Atlanta Model Neighborhood area which had as its objectives the identification of economic development potentials in the area, the identification of ways to exploit these development potentials, and the reporting of the results of research findings to the City of Atlanta. Recent work has included participation in an economic development program in Valencia, Venezuela, which included identification and evaluation of new manufacturing opportunities and the establishment of a program of management and technical assistance to small and medium-size businesses in Venezuela.

Current Fields of Interest
All areas of economic development, especially those dealing with the economic problems connected with urban and rural poverty; upgrading productivity and Latin American economic development.

Major Reports and Publications
4. "Economic Impact of the Proposed Vocationa-Industrial Training Center to be Located in Monroe, Walton County, Georgia," Special EDA Report, March 1969, coauthor
Major Reports and Publications (continued)

10. "La Fabricacion de Aisladores de Porcelana en Venezuela," Report of the University of Carabobo (in Spanish), 1971, coauthor
<table>
<thead>
<tr>
<th>Counties</th>
<th>Net % Minority Median Yrs. Unemployed % Sound Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIFIED STATES</td>
<td>203,184,722 12.6 12.1 12.6 5.6 91.7     80.4</td>
</tr>
<tr>
<td>GEORGIA</td>
<td>4,589,575 + 2.0 26.2 10.8 10.8 20.7 3.7 86.5</td>
</tr>
<tr>
<td>Appling</td>
<td>12,726 -16.2 21.0 8.8 10.0 37.1 2.9 80.4</td>
</tr>
<tr>
<td>Atkinson</td>
<td>5,879 -21.5 31.6 8.1 8.7 44.6 3.0 63.4</td>
</tr>
<tr>
<td>Bacon</td>
<td>8,233 -11.6 13.5 8.2 9.0 31.2 2.7 78.7</td>
</tr>
<tr>
<td>Baker</td>
<td>3,875 -23.3 52.4 7.9 8.8 45.9 7.0 63.7</td>
</tr>
<tr>
<td>Ben Hill</td>
<td>12,171 - 9.0 31.2 8.7 9.6 31.9 6.7 81.8</td>
</tr>
<tr>
<td>Berrien</td>
<td>11,556 -13.1 13.9 8.9 9.2 28.1 2.5 82.3</td>
</tr>
<tr>
<td>Brantley</td>
<td>5,940 -10.3 10.1 8.7 9.0 24.8 6.5 78.4</td>
</tr>
<tr>
<td>Brooks</td>
<td>13,739 -21.0 46.5 8.8 9.6 42.3 3.7 65.1</td>
</tr>
<tr>
<td>Bryan</td>
<td>6,539 -12.3 29.7 8.8 9.6 30.3 8.1 72.0</td>
</tr>
<tr>
<td>Burke</td>
<td>18,255 -24.8 60.3 7.8 8.5 52.7 11.1 54.8</td>
</tr>
<tr>
<td>Calhoun</td>
<td>6,606 -21.5 61.5 7.2 9.1 52.0 3.4 53.4</td>
</tr>
<tr>
<td>Camden</td>
<td>11,334 - 3.4 38.5 10.1 10.7 19.7 4.4 81.6</td>
</tr>
<tr>
<td>Candler</td>
<td>6,412 -12.7 33.7 9.0 9.8 40.3 2.8 70.2</td>
</tr>
<tr>
<td>Cherokee</td>
<td>31,059 +18.7 3.8 9.0 9.4 16.9 10.3 73.8</td>
</tr>
<tr>
<td>Clay</td>
<td>3,636 -27.3 62.0 8.4 9.4 60.7 13.0 55.3</td>
</tr>
<tr>
<td>Clinch</td>
<td>6,405 -21.4 31.5 8.0 11.9 36.3 3.6 64.4</td>
</tr>
<tr>
<td>Cobb</td>
<td>196,739 +49.4 4.4 12.1 11.8 7.1 N/A N/A</td>
</tr>
<tr>
<td>Coffee</td>
<td>22,828 -10.1 25.9 8.7 9.9 32.9 3.2 78.5</td>
</tr>
<tr>
<td>Cook</td>
<td>12,129 -12.4 31.4 8.8 9.5 30.3 3.2 78.9</td>
</tr>
<tr>
<td>Crawford</td>
<td>5,748 -13.3 53.2 8.3 8.9 42.8 6.1 55.9</td>
</tr>
</tbody>
</table>

Source: (See page 81)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dawson</td>
<td>3,639</td>
<td>- 7.4</td>
<td>0.2</td>
<td>M 8.1 F 8.8</td>
<td>27.2</td>
<td>13.8</td>
<td>75.9</td>
<td></td>
</tr>
<tr>
<td>Dodge</td>
<td>15,658</td>
<td>-14.0</td>
<td>25.3</td>
<td>8.9 9.3</td>
<td>35.7</td>
<td>7.2</td>
<td>71.4</td>
<td></td>
</tr>
<tr>
<td>Dooley</td>
<td>10,404</td>
<td>-19.7</td>
<td>50.2</td>
<td>8.4 9.4</td>
<td>46.0</td>
<td>4.4</td>
<td>62.7</td>
<td></td>
</tr>
<tr>
<td>Douglas</td>
<td>28,659</td>
<td>+53.8</td>
<td>11.2</td>
<td>10.3 10.5</td>
<td>12.3</td>
<td>9.5</td>
<td>87.8</td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>12,682</td>
<td>-17.0</td>
<td>47.9</td>
<td>8.2 9.3</td>
<td>49.4</td>
<td>3.1</td>
<td>64.1</td>
<td></td>
</tr>
<tr>
<td>Echols</td>
<td>1,924</td>
<td>- 3.2</td>
<td>28.7</td>
<td>9.3 9.9</td>
<td>31.5</td>
<td>4.9</td>
<td>61.5</td>
<td></td>
</tr>
<tr>
<td>Effingham</td>
<td>13,840</td>
<td>- 6.7</td>
<td>24.6</td>
<td>9.6 10.1</td>
<td>21.8</td>
<td>10.6</td>
<td>69.4</td>
<td></td>
</tr>
<tr>
<td>Emanuel</td>
<td>18,189</td>
<td>- 9.6</td>
<td>30.6</td>
<td>8.8 9.5</td>
<td>34.7</td>
<td>3.7</td>
<td>65.4</td>
<td></td>
</tr>
<tr>
<td>Evans</td>
<td>7,290</td>
<td>- 8.7</td>
<td>35.2</td>
<td>8.7 9.3</td>
<td>41.6</td>
<td>4.8</td>
<td>74.6</td>
<td></td>
</tr>
<tr>
<td>Fannin</td>
<td>13,357</td>
<td>- 7.7</td>
<td>1.3</td>
<td>8.6 8.7</td>
<td>24.6</td>
<td>14.1</td>
<td>73.9</td>
<td></td>
</tr>
<tr>
<td>Forsyth</td>
<td>16,928</td>
<td>+24.0</td>
<td>1.0</td>
<td>8.8 9.2</td>
<td>17.7</td>
<td>7.2</td>
<td>84.9</td>
<td></td>
</tr>
<tr>
<td>Gilmer</td>
<td>8,956</td>
<td>- 7.1</td>
<td>0.5</td>
<td>7.9 8.4</td>
<td>27.9</td>
<td>6.1</td>
<td>71.0</td>
<td></td>
</tr>
<tr>
<td>Glascock</td>
<td>2,280</td>
<td>-23.6</td>
<td>24.4</td>
<td>7.2 8.5</td>
<td>42.1</td>
<td>7.8</td>
<td>59.0</td>
<td></td>
</tr>
<tr>
<td>Grady</td>
<td>17,826</td>
<td>-12.1</td>
<td>35.8</td>
<td>8.8 9.5</td>
<td>35.2</td>
<td>3.4</td>
<td>73.4</td>
<td></td>
</tr>
<tr>
<td>Greene</td>
<td>10,212</td>
<td>-16.8</td>
<td>51.7</td>
<td>8.6 9.5</td>
<td>33.1</td>
<td>4.1</td>
<td>60.2</td>
<td></td>
</tr>
<tr>
<td>Hancock</td>
<td>9,019</td>
<td>-23.4</td>
<td>73.7</td>
<td>7.5 8.9</td>
<td>47.8</td>
<td>5.0</td>
<td>46.2</td>
<td></td>
</tr>
<tr>
<td>Heard</td>
<td>5,354</td>
<td>- 6.4</td>
<td>23.7</td>
<td>8.9 9.4</td>
<td>23.5</td>
<td>6.2</td>
<td>61.5</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>23,724</td>
<td>+27.3</td>
<td>32.1</td>
<td>10.0 10.4</td>
<td>20.0</td>
<td>5.1</td>
<td>84.8</td>
<td></td>
</tr>
<tr>
<td>Irwin</td>
<td>8,036</td>
<td>-23.5</td>
<td>34.0</td>
<td>8.6 9.5</td>
<td>43.8</td>
<td>3.9</td>
<td>73.9</td>
<td></td>
</tr>
<tr>
<td>Jasper</td>
<td>5,760</td>
<td>-13.6</td>
<td>47.8</td>
<td>8.8 9.9</td>
<td>34.9</td>
<td>2.9</td>
<td>62.9</td>
<td></td>
</tr>
<tr>
<td>Jefferson</td>
<td>17,174</td>
<td>-14.6</td>
<td>54.2</td>
<td>8.2 8.9</td>
<td>39.9</td>
<td>5.1</td>
<td>64.3</td>
<td></td>
</tr>
<tr>
<td>Jenkins</td>
<td>8,332</td>
<td>-21.2</td>
<td>44.1</td>
<td>8.4 8.8</td>
<td>44.4</td>
<td>3.0</td>
<td>58.7</td>
<td></td>
</tr>
<tr>
<td>Jones</td>
<td>12,218</td>
<td>+29.5</td>
<td>38.6</td>
<td>9.7 10.1</td>
<td>21.7</td>
<td>6.2</td>
<td>74.2</td>
<td></td>
</tr>
<tr>
<td>Lanier</td>
<td>5,031</td>
<td>-14.4</td>
<td>30.0</td>
<td>8.4 9.8</td>
<td>31.5</td>
<td>8.2</td>
<td>70.4</td>
<td></td>
</tr>
<tr>
<td>Lee</td>
<td>7,044</td>
<td>- 2.2</td>
<td>43.6</td>
<td>9.6 9.6</td>
<td>37.0</td>
<td>4.4</td>
<td>70.5</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------</td>
<td>---------------------------</td>
<td>-----------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------</td>
<td>-----------------</td>
<td>--------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Lincoln</td>
<td>5,895</td>
<td>-8.2</td>
<td>46.1</td>
<td>M 8.3  F 9.7</td>
<td>34.8</td>
<td>8.3</td>
<td>70.0</td>
<td>N/A</td>
</tr>
<tr>
<td>Long</td>
<td>3,746</td>
<td>-13.6</td>
<td>32.1</td>
<td>8.1 9.2</td>
<td>37.2</td>
<td>12.7</td>
<td>69.4</td>
<td>N/A</td>
</tr>
<tr>
<td>McIntosh</td>
<td>7,371</td>
<td>+2.1</td>
<td>50.1</td>
<td>8.0 9.4</td>
<td>35.2</td>
<td>3.7</td>
<td>68.6</td>
<td>N/A</td>
</tr>
<tr>
<td>Macon</td>
<td>12,933</td>
<td>-13.6</td>
<td>61.1</td>
<td>M 8.3  F 9.2</td>
<td>42.6</td>
<td>4.2</td>
<td>60.5</td>
<td>N/A</td>
</tr>
<tr>
<td>Madison</td>
<td>13,517</td>
<td>+9.2</td>
<td>14.1</td>
<td>8.8 9.7</td>
<td>19.3</td>
<td>6.3</td>
<td>78.2</td>
<td>N/A</td>
</tr>
<tr>
<td>Marion</td>
<td>5,099</td>
<td>-18.4</td>
<td>52.0</td>
<td>7.9 9.3</td>
<td>40.2</td>
<td>4.8</td>
<td>53.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Meriwether</td>
<td>19,461</td>
<td>-11.5</td>
<td>47.7</td>
<td>9.0 9.4</td>
<td>32.2</td>
<td>6.4</td>
<td>62.5</td>
<td>N/A</td>
</tr>
<tr>
<td>Miller</td>
<td>6,397</td>
<td>-17.6</td>
<td>29.3</td>
<td>8.1 9.1</td>
<td>47.0</td>
<td>8.6</td>
<td>72.6</td>
<td>N/A</td>
</tr>
<tr>
<td>Mitchell</td>
<td>18,956</td>
<td>-19.0</td>
<td>48.5</td>
<td>8.6 9.4</td>
<td>36.9</td>
<td>5.7</td>
<td>75.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Montgomery</td>
<td>6,099</td>
<td>-14.5</td>
<td>33.3</td>
<td>9.0 9.7</td>
<td>33.4</td>
<td>4.8</td>
<td>66.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Morgan</td>
<td>9,904</td>
<td>-16.1</td>
<td>45.1</td>
<td>8.9 9.4</td>
<td>37.1</td>
<td>4.1</td>
<td>70.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Marion</td>
<td>12,986</td>
<td>+9.9</td>
<td>1.2</td>
<td>8.3 8.7</td>
<td>14.1</td>
<td>4.5</td>
<td>76.7</td>
<td>N/A</td>
</tr>
<tr>
<td>Oglethorpe</td>
<td>7,598</td>
<td>-11.5</td>
<td>37.2</td>
<td>8.1 9.1</td>
<td>28.0</td>
<td>5.7</td>
<td>62.5</td>
<td>N/A</td>
</tr>
<tr>
<td>Paulding</td>
<td>17,520</td>
<td>+20.8</td>
<td>8.0</td>
<td>8.9 9.2</td>
<td>18.3</td>
<td>15.8</td>
<td>80.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Pickens</td>
<td>9,620</td>
<td>+16.7</td>
<td>3.5</td>
<td>8.3 8.7</td>
<td>20.8</td>
<td>7.4</td>
<td>78.7</td>
<td>N/A</td>
</tr>
<tr>
<td>Pierce</td>
<td>9,281</td>
<td>-14.3</td>
<td>19.3</td>
<td>8.8 9.7</td>
<td>26.8</td>
<td>6.1</td>
<td>81.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Pike</td>
<td>7,316</td>
<td>-8.3</td>
<td>40.4</td>
<td>8.5 9.2</td>
<td>28.2</td>
<td>15.6</td>
<td>57.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Polk</td>
<td>29,656</td>
<td>-4.1</td>
<td>15.7</td>
<td>9.2 9.2</td>
<td>20.3</td>
<td>7.0</td>
<td>80.7</td>
<td>N/A</td>
</tr>
<tr>
<td>Pulaski</td>
<td>8,066</td>
<td>-12.4</td>
<td>36.5</td>
<td>8.9 9.9</td>
<td>36.9</td>
<td>6.3</td>
<td>71.7</td>
<td>N/A</td>
</tr>
<tr>
<td>Quitman</td>
<td>2,180</td>
<td>-23.6</td>
<td>60.2</td>
<td>6.8 8.3</td>
<td>54.1</td>
<td>6.8</td>
<td>55.5</td>
<td>N/A</td>
</tr>
<tr>
<td>Rabun</td>
<td>8,327</td>
<td>+1.4</td>
<td>1.5</td>
<td>9.4 9.9</td>
<td>25.1</td>
<td>4.2</td>
<td>64.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Randolph</td>
<td>8,734</td>
<td>-28.3</td>
<td>55.6</td>
<td>8.0 9.2</td>
<td>50.6</td>
<td>4.0</td>
<td>59.4</td>
<td>N/A</td>
</tr>
<tr>
<td>Schley</td>
<td>3,097</td>
<td>-16.0</td>
<td>44.8</td>
<td>8.3 9.8</td>
<td>29.6</td>
<td>2.6</td>
<td>62.9</td>
<td>N/A</td>
</tr>
<tr>
<td>Screven</td>
<td>12,591</td>
<td>-23.8</td>
<td>46.2</td>
<td>8.1 9.0</td>
<td>38.6</td>
<td>5.3</td>
<td>62.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Seminole</td>
<td>7,059</td>
<td>-10.5</td>
<td>35.6</td>
<td>8.9 10.0</td>
<td>29.0</td>
<td>5.0</td>
<td>70.4</td>
<td>N/A</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------</td>
<td>---------------------------</td>
<td>-----------------------------</td>
<td>--------------------------------------</td>
<td>----------------------------</td>
<td>-------------------</td>
<td>----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Stewart</td>
<td>6,511</td>
<td>-22.0</td>
<td>64.9</td>
<td>M: 7.8</td>
<td>F: 9.1</td>
<td>48.0</td>
<td>3.4</td>
<td>56.4</td>
</tr>
<tr>
<td>Talbot</td>
<td>6,625</td>
<td>-15.9</td>
<td>68.0</td>
<td>7.7</td>
<td>9.0</td>
<td>41.7</td>
<td>4.2</td>
<td>45.9</td>
</tr>
<tr>
<td>Taliaferro</td>
<td>2,423</td>
<td>-32.8</td>
<td>63.6</td>
<td>7.6</td>
<td>8.2</td>
<td>51.4</td>
<td>9.7</td>
<td>50.4</td>
</tr>
<tr>
<td>Tattnall</td>
<td>16,557</td>
<td>-5.0</td>
<td>30.8</td>
<td>8.9</td>
<td>9.5</td>
<td>35.3</td>
<td>3.7</td>
<td>77.8</td>
</tr>
<tr>
<td>Taylor</td>
<td>7,865</td>
<td>-15.0</td>
<td>44.8</td>
<td>8.2</td>
<td>8.9</td>
<td>36.4</td>
<td>3.0</td>
<td>60.8</td>
</tr>
<tr>
<td>Telfair</td>
<td>11,381</td>
<td>-14.3</td>
<td>34.8</td>
<td>8.3</td>
<td>9.3</td>
<td>35.5</td>
<td>4.0</td>
<td>68.9</td>
</tr>
<tr>
<td>Terrell</td>
<td>11,416</td>
<td>-25.4</td>
<td>60.0</td>
<td>8.7</td>
<td>9.9</td>
<td>42.4</td>
<td>2.6</td>
<td>60.3</td>
</tr>
<tr>
<td>Towns</td>
<td>4,565</td>
<td>-6.6</td>
<td>0.1</td>
<td>8.7</td>
<td>8.9</td>
<td>30.4</td>
<td>10.9</td>
<td>74.8</td>
</tr>
<tr>
<td>Treutlen</td>
<td>5,647</td>
<td>-15.7</td>
<td>33.4</td>
<td>7.6</td>
<td>8.9</td>
<td>38.0</td>
<td>6.8</td>
<td>63.2</td>
</tr>
<tr>
<td>Turner</td>
<td>8,790</td>
<td>-8.9</td>
<td>35.7</td>
<td>8.6</td>
<td>9.7</td>
<td>33.6</td>
<td>3.1</td>
<td>72.9</td>
</tr>
<tr>
<td>Union</td>
<td>6,811</td>
<td>-4.8</td>
<td>0.0</td>
<td>8.2</td>
<td>8.4</td>
<td>36.0</td>
<td>11.4</td>
<td>72.2</td>
</tr>
<tr>
<td>Walton</td>
<td>23,404</td>
<td>+0.1</td>
<td>27.9</td>
<td>8.9</td>
<td>9.2</td>
<td>20.0</td>
<td>3.2</td>
<td>77.4</td>
</tr>
<tr>
<td>Warren</td>
<td>6,669</td>
<td>-20.4</td>
<td>58.4</td>
<td>7.4</td>
<td>9.0</td>
<td>43.5</td>
<td>7.1</td>
<td>58.3</td>
</tr>
<tr>
<td>Washington</td>
<td>17,480</td>
<td>-18.8</td>
<td>53.7</td>
<td>7.9</td>
<td>9.3</td>
<td>38.8</td>
<td>3.8</td>
<td>59.3</td>
</tr>
<tr>
<td>Webster</td>
<td>2,362</td>
<td>-37.3</td>
<td>58.4</td>
<td>7.5</td>
<td>9.2</td>
<td>46.1</td>
<td>6.7</td>
<td>52.2</td>
</tr>
<tr>
<td>Wheeler</td>
<td>4,596</td>
<td>-21.4</td>
<td>30.9</td>
<td>7.7</td>
<td>8.5</td>
<td>36.4</td>
<td>3.9</td>
<td>64.9</td>
</tr>
<tr>
<td>White</td>
<td>7,742</td>
<td>-0.1</td>
<td>5.9</td>
<td>8.9</td>
<td>9.4</td>
<td>23.9</td>
<td>4.9</td>
<td>77.5</td>
</tr>
<tr>
<td>Wilcox</td>
<td>6,998</td>
<td>-17.4</td>
<td>31.1</td>
<td>8.6</td>
<td>9.5</td>
<td>39.9</td>
<td>8.5</td>
<td>63.6</td>
</tr>
<tr>
<td>Wilkes</td>
<td>10,184</td>
<td>-14.0</td>
<td>47.3</td>
<td>9.2</td>
<td>10.2</td>
<td>35.4</td>
<td>4.0</td>
<td>65.0</td>
</tr>
<tr>
<td>Worth</td>
<td>14,770</td>
<td>-25.7</td>
<td>37.9</td>
<td>8.9</td>
<td>9.5</td>
<td>39.8</td>
<td>4.1</td>
<td>69.8</td>
</tr>
</tbody>
</table>

3/ Cobb County unemployment statistics are not available since they are reported as part of the Atlanta Standard Metropolitan Statistical Area, which includes in addition to Cobb County, the following counties: Fulton, DeKalb, Clayton, and Gwinnett.
This work program which encompasses Chart 2 has been waived by paragraph five of the grant amendment offer dated the 26th day of June 1972.
### Chart 3
**Regional Economic Development Center**
**Georgia Institute of Technology**
**Activity Report**
**June 1, 1973 to June 30, 1974**

<table>
<thead>
<tr>
<th></th>
<th>Business Stabilization</th>
<th>Business Expansion</th>
<th>New Venture</th>
<th>Community Development</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
<td>Current</td>
<td>Previous</td>
</tr>
<tr>
<td>ONGOING (BEGINNING)</td>
<td>8</td>
<td>3</td>
<td>11</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>NEW</td>
<td>5</td>
<td>13</td>
<td>15</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>DISCONTINUED</td>
<td>10</td>
<td>11</td>
<td>20</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>ONGOING (ENDING)</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL ACTIVE DURING YEAR</td>
<td>13</td>
<td>16</td>
<td>26</td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage of Effort as measured by Cost*</th>
<th>This Period</th>
<th>Previous Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Stabilization</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Business Expansion</td>
<td>35</td>
<td>32</td>
</tr>
<tr>
<td>New Venture</td>
<td>33</td>
<td>49</td>
</tr>
<tr>
<td>Community Development</td>
<td>13</td>
<td>3</td>
</tr>
</tbody>
</table>

* Cost is interpreted to mean Budget Cost for Period of Reporting.
CHART 4

SUMMARY OF PROJECT ACTIVITY BY TYPE AND SUBREGION

<table>
<thead>
<tr>
<th>Subregion</th>
<th>New Venture</th>
<th>Business Expansion</th>
<th>Business Stabilization</th>
<th>Community Development</th>
<th>Current Costs % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTRAL SAVANNAH RIVER EDD</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>COASTAL PLAIN EDD</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>GEORGIA MOUNTAINS EDD</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>HEART OF GEORGIA EDD</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>NORTHEAST GEORGIA EDD</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>OCONEE AREA EDD</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SLASH PINE EDD</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>SOUTHWEST GEORGIA EDD</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>MIDDLE FLINT EDD</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>CHATTahoocee-FLINT EDD</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>COASTAL AREA EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LOWER CHATTahoocee EDD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>PROJECTS OUTSIDE EDD'S</td>
<td>7</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>TOTAL</td>
<td>28</td>
<td>30</td>
<td>16</td>
<td>11</td>
<td>100%</td>
</tr>
<tr>
<td>Area</td>
<td>Business Stabilization</td>
<td>Business Expansion</td>
<td>New Venture</td>
<td>Community Econ. Develop.</td>
<td>Other</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>--------------------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
<td>Actual</td>
<td>Goal</td>
</tr>
<tr>
<td>CENTRAL SAVANNAH RIVER EDD</td>
<td>Not Estb. 432</td>
<td>Not Estb. 8</td>
<td>Not Estb. 0</td>
<td>Not Estb. 0</td>
<td></td>
</tr>
<tr>
<td>COASTAL PLAIN EDD</td>
<td>&quot; 0</td>
<td>&quot; 55</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>GEORGIA MOUNTAINS EDD</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>HEART OF GEORGIA EDD</td>
<td>&quot; 0</td>
<td>&quot; 80</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>NORTHEAST GEORGIA EDD</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 190</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>OCONEE AREA EDD</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>SLASH PINE EDD</td>
<td>&quot; 233</td>
<td>&quot; 58</td>
<td>&quot; 8</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>SOUTHWEST GEORGIA EDD</td>
<td>&quot; 0</td>
<td>&quot; 115</td>
<td>&quot; 25</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>MIDDLE FLINT EDD</td>
<td>&quot; 0</td>
<td>&quot; 40</td>
<td>&quot; 34</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>CHATTAHOOCHEE-FLINT EDD</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>COASTAL AREA EDD</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>LOWER CHATTAHOOCHEE EDD</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td>PROJECTS OUTSIDE EDD'S</td>
<td>&quot; 136</td>
<td>&quot; 471</td>
<td>&quot; 38</td>
<td>&quot; 0</td>
<td>&quot; 0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>801</strong></td>
<td><strong>827</strong></td>
<td><strong>295</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>
MAPS
Map 1

AREA PLANNING AND DEVELOPMENT COMMISSION BOUNDARIES AND BRANCH OFFICES
OF GEORGIA TECH'S INDUSTRIAL DEVELOPMENT DIVISION

1. ALTAMAHA - GEORGIA SOUTHERN
2. ATLANTA METROPOLITAN
3. CENTRAL SAVANNAH RIVER
4. CHATTahooCHEE-FLINT
5. COASTAL
6. COASTAL PLAIN
7. COOSA VALLEY
8. GEORGIA MOUNTAINS
9. HEART OF GEORGIA
10. LOWER CHATTahooCHEE
11. MCINTOSH TRAIL
12. MIDDLE FLINT
13. MIDDLE GEORGIA
14. NORTH GEORGIA
15. NORTHEAST GEORGIA
16. OCONEE
17. SLASH PINE
18. SOUTHWEST GEORGIA

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology

-87-
Map 2
ECONOMIC DEVELOPMENT DISTRICTS

1. Georgia Mountains EDD
2. Northeast Georgia EDD
3. Central Savannah River EDD
4. Oconee EDD
5. Heart of Georgia EDD
6. Coastal Plain EDD
7. Slash Pine EDD
8. Coastal EDD
9. Southwest Georgia EDD
10. Middle Flint EDD
11. Chattahoochee-Flint EDD
12. Lower Chattahoochee EDD

Approved County
Map 3
EDA Counties and EDD's as of 30 June 1974

LEGEND:
- ACTIVE PROJECTS
- ELIGIBLE COUNTY
- ECONOMIC DEVELOPMENT CENTER
ESTABLISHMENT AND REPORTING OF EDA PROJECTS
(Project A-1438)

1. Individual EDA projects funded under Project A-1438 will be formally established and monitored by the Head, Industrial Services Branch (Project Director). Approval of the project must be obtained before charges can be made. Branch offices and other IDD Branches or Sections recommending the establishment of projects will furnish sufficient information, on a copy of the form shown in Exhibit A, for the Project Director to make a decision and make staff assignments.

2. If the project is approved, all previous work done in relation to this project will be chargeable to that specific project number. Upon approval of a project, the project director will assign a Project Number and a completed copy of the EDA Assistance Case Record form (Exhibit A) will be forwarded to the responsible branch or section, and, in the case of branch offices, a copy will be forwarded to the Director of Area Development. When the project is terminated the completed form will be returned to the Project Director.

3. In the event a project is not formally established, but investigative time and project analysis time has been authorized, then that time will be specifically authorized for charge against A-1438. To accomplish the reporting of this situation, the following terms will be used:

   (a) Program Management. This term is reserved exclusively for the project director and assistant project director. Branch office personnel will prorate necessary administrative time to the specific numbered projects on which they are working.

   (b) Program Research. This will be used for general background research in support of the overall EDA program and not in research specifically related to a numbered project. This term will normally be used only when so assigned by the Project Director.

   (c) Project Establishment Analysis. This term will be used to charge time needed to analyze the situation to determine if a project should be established. The name of the company and a description of the work performed will be reported in the comments section of the monthly EDA Activity Report (Exhibit B). Upon establishment of a project, time so charged will be charged to the numbered project.

4. EDA activity supported by Project A-1438 will be reported on a monthly basis. Reports will be submitted within five days following the end of the month. The report will be made on the EDA Activity Report form, shown in Exhibit B, in accordance with instructions contained in Exhibit C.
CRITERIA FOR STARTING NEW EDA PROJECTS

In order to avoid any misunderstanding about the types of projects included in the program, the following criteria must be met before a company (or a proposed new venture) will be considered as an EDA project:

1. The company (or the proposed new venture) must be in an EDA county or an Economic Growth Center.

2. The proposed project must have potential for an ultimate increase in jobs and/or result in strengthening the current base of employment.

3. There must be a stable and/or growing market for the product or products involved.

4. The proposed project must be potentially profitable in terms of the company's realistic capabilities.

5. The proposed project must not involve the relocation of a business from one area to another.

6. The proposed project must not involve providing financial assistance to any industry in which there is an over capacity of production (e.g. poultry, garment).

It should be noted that some projects undoubtedly will involve an investigation of markets and capabilities only to conclude that the projects are not economically sound. This is a necessary result in some cases. As a matter of policy, it is as important to recognize the unsound proposals as it is to give support to the sound ventures.
Appendix 1, Exhibit A

EDA ASSISTANCE CASE RECORD

<table>
<thead>
<tr>
<th>Company</th>
<th>Case No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Telephone</td>
</tr>
<tr>
<td>Name and Title of company contact</td>
<td></td>
</tr>
<tr>
<td>Origin of request</td>
<td></td>
</tr>
<tr>
<td>Assigned to</td>
<td>Date</td>
</tr>
</tbody>
</table>

Background and nature of the problem:

---

Work Performed

<table>
<thead>
<tr>
<th>Date</th>
<th>Action Taken</th>
<th>Man-hours</th>
</tr>
</thead>
</table>

Results and Remarks
<table>
<thead>
<tr>
<th>Project</th>
<th>Company Name</th>
<th>Contact</th>
<th>County</th>
<th>Reported By</th>
<th>Description</th>
<th>Comments</th>
<th>Results</th>
<th>Employment Change</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- EDA MONTHLY ACTIVITY REPORT
- Due in Atlanta by 5th of Following Month
- Branch
- Month
- Proj. Company Name - Contact
- County - Reported By
- Description
- Comments
- Results
- Employment Change
- Explanation
INSTRUCTION FOR COMPLETION OF EDA MONTHLY ACTIVITY REPORT FORM

The purpose of the EDA Activity Report is to provide information relative to EDA Projects being worked on by individuals in IDD.

The report is due in Industrial Services Branch by the 5th of the month following the month for which the report is submitted.

Complete Form as follows:

Top of Form:

Branch: Branch of which individual is member
Month: Month for which report submitted

Column #

1. Project Number: EDA Project Number assigned by Industrial Services Branch, Atlanta.

2. Company Name, Contact, County, Reported by: Name of company; name of individual in company to be contacted; county in which company is located; IDD staff member who is reporting.

Type:

3. Expansion or Diversification
4. New Business
5. Business Stabilization (save jobs)
6. Community Development

7. Time Charged: Number of hours worked on each project during month.
8. Month/Year: Month and year in which work was performed
9. Employment Change (+ or -): Net change in the number of persons employed by the subject firm since the last report. For new projects for which there is no previous report, insert, in parentheses, the total number of persons employed by the subject firm.

New; Con.; Disc.

10. New for projects not previously reported
Appendix 1, Exhibit C (continued)

11. Cont. for continuing projects

12. Disc. for projects closed during month

13. Description/Comments/Results/Employment Change/Explanation

For New Projects:
Describe the product(s) produced by the subject company. Describe project indicating what assistance is needed and what is to be done in addition to what was done during the month. Estimate the change in employment anticipated as a result of IDD assistance. If the project is a business stabilization type with the main purpose of saving jobs by preventing the failure of the firm, indicate how many jobs will be saved if IDD's efforts are successful.

For Continuing Projects:
Report status of project and what has been done during the month, and explain any increase or decrease in employment reported in Column #9.

For Discontinued Projects:
Report why project was closed; results of IDD's efforts to date; results expected in future and by what date; any special problems IDD could not solve; approximate date closed project should be checked to see if expected results are obtained. In all cases the change, if any, in employment as a result of IDD assistance should be explained and evaluated fully. This explanation and evaluation should include any jobs saved in a business stabilization type project even if there is no net change in employment.

At the bottom of page, indicate total hours charged to all EDA projects and percentage of time charged to EDA on time sheets. Example: Total hours 120; Time on Time Sheet 75%.
OUTLINE OF IDD EDA PROGRAM
IN THE NORTHEAST GEORGIA EDD

The following program pertains only to EDA-designated counties and the Economic Development Centers. Designated EDA counties as of 12 October 1971 in the Northeast Georgia Area are: Greene, Madison, Morgan, Oglethorpe, and Walton. Athens, Georgia is the Economic Development Center.

Over All Strategy

The strategy of the Industrial Development Division in performing its duties under the EDA grant is two-fold:

a. To respond to requests for EDA assistance from organizations in the economic development field, i.e., Economic Development Districts, Georgia Department of Industry and Trade, Georgia Planning Bureau, EDA Economic Development Specialists, Chambers of Commerce, and local officials in EDA-designated areas.

b. To seek out opportunities to advance the principles of EDA through surveys of industry in EDA-designated areas, through the seven IDD field offices, as well as those identified through discussion with persons in IDD who are involved in other areas of economic and community development which are not directly associated with the EDA activity.

Objectives of the EDA Program

- To stimulate the expansion and diversification of existing industry.
- To support the formation of new, economically sound enterprises.
- As an ultimate objective from the two stated above, to create additional jobs.

Scope of Services Available

The scope of management and technical assistance services available through this program is briefly summarized as follows:

Organization analysis; guidance and recommendations on financing; plant layout; development of market data; assistance in locating suppliers of special equipment or services; determination of
manpower requirements; assistance in production methods and procedures; recommendations regarding sales and distribution methods; assistance in the formation of new ventures, new plant construction, and/or expansion.

These services are available to established firms which show a capacity and interest in expansion and diversification. In addition, this same type of service will also be made available to those individuals or groups offering a good potential for establishing new enterprises.

In addition to the management and technical assistance services available, the following will be accomplished:

Audit of firms located in newly designated Economic Development Centers and selected counties for the purpose of identifying the demand for specific products and services which potentially could be supplied by existing or new firms located in EDA-designated areas and to determine a need for management and technical assistance services which may be rendered by IDD.

Criteria for EDA Projects

In order to avoid any misunderstanding about the types of projects included in the program, the following criteria must be met before a company (or a proposed new venture) will be considered as an EDA project:

1. The company (or the proposed new venture) must be in an EDA county or an Economic Development Center.

2. The proposed project must have potential for an ultimate increase in jobs and/or result in strengthening the current base of employment.

3. There must be a stable and/or growing market for the product or products involved.

4. The proposed project must be potentially profitable in terms of the company's realistic capabilities.

5. The proposed project must not involve the relocation of a business from one area to another.
6. The proposed project must not involve providing financial assistance to any industry in which there is an over capacity of production (e.g. poultry, garment).

It should be noted that some projects undoubtedly will involve an investigation of markets and capabilities only to conclude that the projects are not economically sound. This is a necessary result in some cases. As a matter of policy, it is as important to recognize the unsound proposals as it is to give support to the sound ventures.

Approach

1. At the earliest possible date, it is suggested that notice of the program be given to the newspapers by the Northeast Georgia EDD (see attached suggested press release) and that each of the manufacturers in the Economic Development Center receive a letter from the Northeast Georgia Area Planning and Development Commission announcing the program. (A suggested letter is attached.)

2. Each of the firms will subsequently be contacted personally by an IDD representative. A representative of the commission will also be invited to join with the IDD representative in making these contacts. As a part of this interview, information will be collected by the IDD representative on such factors as employment, product, and production capabilities of each company. (A survey form is attached.) A copy of each completed data sheet will be furnished the EDD.

3. As individual case projects are developed, IDD staff personnel will be assigned responsibility for management or technical assistance projects. Work performed on each project and the results achieved will be recorded on individual project report forms. The Northeast Georgia Area Planning and Development Commission will be advised periodically as to the nature and status of projects.
A program of providing management and technical assistance to (Name of City) industries is underway. This service is sponsored by the Economic Development Administration and Georgia Tech. The staff of the Northeast Georgia Area Planning and Development Commission is working with representatives of the Industrial Development Division of Georgia Tech in the performance of this program. The purpose of this program is to stimulate the expansion and diversification of existing industries with the ultimate objective of creating additional job opportunities. Services to the industries cover the broad fields of management guidance, market research, and technical assistance.

Letters explaining the program will be mailed to (Name of City) industries by the Northeast Georgia Area Planning and Development Commission. A representative from Georgia Tech will soon be contacting firms in (Name of City) in order to personally outline the program in greater detail. If a firm wished to avail itself of such assistance prior to being contacted, it should get in touch with ____________________________ of the Northeast Georgia Area Planning and Development Commission.
Dear

Last year the U.S. Department of Commerce sponsored a program of management and technical assistance through Georgia Tech's Industrial Development Division which was of direct benefit to more than 100 firms in Georgia. We are pleased to inform you that this program of specialized service has been expanded and is now available to you.

This program is a joint effort of the Economic Development Administration and Georgia Tech. Its purpose is to stimulate the expansion and diversification of existing industry with the ultimate objective of creating additional job opportunities. The program of service to industry covers the broad fields of management guidance, market research and technical assistance in solving the many problems that beset business today.

In the near future, a representative of Georgia Tech will be contacting you for the purpose of clarifying the program and its objectives. In addition, he will want to discuss those areas of interest outlined in the attached survey form.

If you have any questions concerning the program, or if you wish to avail yourself of these services prior to being contacted, please call _________

_________________________ of the Northeast Georgia Area Planning and Development Commission.
CONFIDENTIAL MANUFACTURERS DATA SHEET

1. Firm Name ____________________________________________ S.I.C.# ________
2. Street Address ________________________________________ P. O. Box ________
3. City and County ____________________________ Phone ______________
4. Key Personnel (Include President, Manager, Purchasing Agent, etc.):

<table>
<thead>
<tr>
<th>NAMES</th>
<th>TITLES</th>
<th>NAMES</th>
<th>TITLES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Normal number of production employees: Total ______ Male ______
   Key Skills ______________________________________________________

6. Products and/or Services: ________________________________________

7. Brief description of production process: ____________________________

8. Average daily production output (with present facilities): ____________
9. Maximum daily production output (with present facilities): ____________
10. Normal production schedule: Days per year ______ Shifts ______ % Overtime

11. Major items of equipment: ______________________

12. Percentage of time that equipment is in use: ______ %

13. Specialized equipment and/or capabilities, if any: _____________________


15. Major materials, components, supplies used and sources:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SOURCE</th>
<th>ITEM</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Needs, if any, for additional and/or closer sources of materials and supplies:

17. Types, quantities, and disposition of by-products and waste: ____________
Appendix 2, Exhibit C (continued)

18. Current sales volume: ________________
   ( ) Increasing
   ( ) Steady
   ( ) Decreasing

19. Seasonal fluctuations: ________________

20. Description of distribution system used: ________________

21. Marketing area (county, state, region, nation, overseas): ________________

22. Plant site ______ sq. ft.; Site size ______ acres; Office area ______ sq. ft.

     Production area _________ sq. ft.; Warehouse area ______ sq. ft.

23. Plant expansion in last five years: ________________

24. Expansion or diversification planned: ________________

25. Transportation services used (check): Rail ______ Highway ______ Air ______

26. Presently, what are the major problems confronting your business? ________________

27. In the area of new developments, in what particular fields of management, science, engineering, or technology, would you like to be kept informed? ________________

28. Sources of information presently used: ________________

29. What specific information needs do you have in either management or technical areas? ________________

-------------------------------------------------------------------------

<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE</th>
</tr>
</thead>
</table>

Comments: ________________

-------------------------------------------------------------------------

Interview completed for: ________________________________

Interviewer: ________________________________

( ) EDA    ( ) STS
Appendix 3

LETTERS OF APPRECIATION
Mr. Phillip W. Potts  
Engineering Experiment Station  
Georgia Institute of Technology  
Atlanta, Georgia 30332

Dear Phil:

Just a note to thank you for the assistance you and George Dodson are giving the people in Habersham County on their industrial park. We are indebted to the Georgia Power Company also. The presentation last Wednesday was real good and shows the possibilities that are open to the folks in Habersham County.

I hope you can continue to help them as they pull their entire plan together. I believe they have outlined for you the areas in which they need assistance. Your assistance will be appreciated. Anything I can do to help, please let me know.

Sincerely,

Don Nicholson  
Industrial Development Specialist

cc: Dean Swanson  
DN/hm
November 30, 1973

Mr. Ross W. Hammond, Chief
Industrial Development Division
Engineering Experiment Station
Georgia Institute of Technology
Atlanta, Georgia 30332

Dear Ross:

I want to particularly congratulate you for the work of Dr. Chiang in our behalf in furthering international development within the State of Georgia. The major study, which he completed several years ago for Den Norske Gipsplatefabrikk was extremely well done and thoroughly professional. Although the plant did not locate in Georgia because of our inability to totally finance the facility, the work done by Dr. Chiang was excellent in all respects, appreciated and well received by the Norwegian company.

The enclosed letter from NORCEM, Oslo, Norway, requesting Dr. Chiang, specifically, to update the original study is an indication that the quality of his work is recognized by both Mr. Nilsson, President, Den Norske Gipsplatefabrikk and NORCEM. From all indications the current study is also being done in a highly professional and skilled manner.

Again, I would like to thank you for the outstanding work of Dr. Chiang on behalf of this Division in furthering international investment and development in the State of Georgia.

With warm personal regards.

Sincerely,

/JOHN D. WELSH
Director, International Division

JDW:bsp
Enclosure
Dear Mr. Welsh:

I understand that Mr. Anders Letmolie of Den Norske Gipsplatefabrikk A/S has telephoned you about our company's interest in a possible joint venture in building a plywood plant in Oglethorpe County, Georgia. The presidents of A/S Norcem and Den Norske Gipsplatefabrikk A/S will visit Georgia in September with respect to this project. Before this visit takes place, we would very much appreciate some assistance from your office.

Referring to the feasibility study made by Mr. T.I. Chiang of the Georgia Institute of Technology, project A - 1179, in 1969 we would like to know if there have been any significant changes in the following subjects:

a) Timber resources and supply, and timber procurement.

b) Market potentials: What was the U.S. production of plywood in 1972, and what are the projections made for the next few years? How many new plants have been built since 1968 nationally, and how many in the South, and what are the projections for the next few years?

c) Projected investment, costs, and profits:

What has the price development of 3/8-inch thickness been since 1968, and how is the future price outlook? Also, how has the price of logs developed, and what is the present labor costs. The study has used a straight-line depreciation method, what are the other depreciation methods available in Georgia? Have the sources of financing changed significantly since 1968, or can we use the original financial plan for Norden Plywood Inc., as a base for our revised study. What would be the requirements for achieving partly financing through "Industrial revenue bond financing", and what are the present terms for such financing?
d) Plant site: Is the proposed plant site still available, and have the conditions related to the land been altered since the original study?

Furthermore, we would be very pleased if you could supply us with other pertinent information regarding the plywood industry. If it is possible to get the latest promotional matters (such as "How to buy and specify plywood," etc.), and perhaps tooling prices, this would be of great help to us.

Some of this information is perhaps difficult to come up with. We would, however, appreciate any parts of the information at your earliest convenience.

To give you some information about our company, I will mail you our latest annual report when the English texted version will be available in a few weeks. Briefly, Norcem is the largest building products manufacturer in Norway with 1972 sales of £120 mill. and 3,000 employees. Our main products are cement, concrete, light weight aggregates, cement-asbestos and fiberglass.

We hope your staff will be able to assist us in our plywood investigation, and if there are anything which is not clear in our questions, we hope you will contact us.

Sincerely,

Kjell Haugen
Manager New Product Development
Dr. Tze I. Chiang
Senior Research Scientist
Engineering Experiment Station
Georgia Institute of Technology
Atlanta, Georgia 30332

Dear Dr. Chiang:

This is in reference to your recent assistance to the Georgia Forestry Commission and the Chattahoochee-Flint Area Planning and Development Commission.

You will recall at our initial meeting that we expressed a desire to try to assemble the necessary information to use as a tool to entice more woodusing industries into this area. I would like to express our gratitude for the excellent report you prepared. The report was a brief and concise look at the potential of increased timber utilization. I feel this report will be one of the basic documents in our package.

We enjoyed meeting and discussing our problem with you. If we of the Georgia Forestry Commission can ever be of assistance to you, please let us know.

Very truly yours,

Preston T. Fulmer
District Forester

PTF: km
May 23, 1974

Industrial Development Division
ENGINEERING EXPERIMENT STATION
Georgia Institute of Technology
Atlanta, Georgia

Attention: Tze I. Chiang

Dear Mr. Chiang:

We are in receipt of the report you prepared per our request
MARKET POTENTIALS FOR MANUFACTURING WOODEN PALLETS IN ALBANY, GEORGIA -- A PRELIMINARY STUDY.

We would like to convey our deep appreciation for a very concise and well prepared report. We would like to assure you that each and every detail of your report will weigh heavily in every decision we incur in manufacturing pallets.

At the present we are just beginning the manufacture of frames for box spring mattresses. As soon as this addition is on its way, however, we will begin with the pallets.

Again let us express our appreciation for a fine report that will be most helpful in marketing our products.

Very truly yours,

SOUTHEAST TIMBER PRODUCTS, INC.

E. W. Jackson, Jr., Pres.

EWJ/cb
May 30, 1974

Mr. Phillip W. Potts
Engineering Experiment Station
Georgia Institute of Technology
Atlanta, Georgia 30332

Dear Phil:

Just a note to thank you and George for the excellent ground work leading up to our meeting yesterday. Our local officials with the County and Chamber were very impressed with the overall presentation and I firmly believe we have established the foundation for a workable industrial development program.

We are very hopeful that you can continue working with us as we move into the coordinated program between the Habersham County Industrial Authority and the Habersham County Chamber of Commerce. We require assistance in numerous areas such as the concept of the overall program, organization, policies, job analysis, compensation, interviewing and hiring, etc. While we feel the established programs at Stephens County and Athens have been very successful and should serve as a guide for our efforts, we would like each of them to be investigated in some depth to see if some modifications might be beneficial. In short, we feel front end analysis is absolutely critical to the overall success of what we hope to accomplish in Habersham County.

Again, thanks for all your help so far and we hope you will be able to assist us further as we move into the next phase of our planning.

Sincerely,

Dean C. Swanson

DCS/gb

cc: Clay Strange, Chairman, Habersham County Commissioners
c: Walter Gemperline, President, Habersham County Chamber of Commerce
c: Alton Wingate, Habersham County Chamber of Commerce
c: Don Nicholson, Industrial Development Specialist
Mr. Miles Greer  
Ga. Institute of Technology  
Industrial Development Div.  
220 E. Sellers St.  
Douglas, Ga.

Dear Miles,

I would like to take this opportunity to express our appreciation for the recent study you did for Southeastern Computer Service Center. The findings you presented to our board easily depicted our "problem areas" and the solutions offered were of great value. Presently we have employed a Systems Analyst/Programer who should be on board by December 15, 1972 and are incorporating the other recommendations when feasible.

The board and I feel that you performed an outstanding service considering the short period of time allocated. With the implementation of your recommendations our firm should continue to grow and increase its profits. The service the Industrial Development Division performs is of great value to Douglas and surrounding communities and I encourage you to continue the good work.

Sincerely,

Carl A. Childre  
Executive Vice President
Mr. Sherman L. Dudley  
Industrial Development Division  
Southeast Georgia Branch  
P.O. Box 1244  
Douglas, Georgia 31533

Dear Mr. Dudley,

Among the many services that you have performed for us, we would like to take this time out to thank you again, and also the most recent one by getting us set up into the fabrication of countertops.

You have just rendered us a service that will save us quiet a bit of time, trouble, and expense plus the fact that it has a very good profit potential for the future.

I feel sure that we will be calling on you again in the very near future, and if there is ever anything that Blanton Cabinets, Inc. can do to help you in any way, please feel free to call at once.

Thank you for your time and consideration on this matter.

[Signature]

Charles Wayne Blanton

CWJ sb
Appendix 4

NEWS ARTICLES
Allied Polymer to employ
jobless in fed program

Two Georgia firms will hire and train 103 jobless persons under the Job Opportunities in the Business Sector (JOBS) program. The U. S. Department of Labor's Assistant Regional Director for Manpower William U. Norwood, Atlanta, said federal funds have been approved for the projects.

Allied Polymer Corporation, 200 Meadowlake Parkway, Swainsboro, will hire and train 10 participants as injection molding machine operators. Federal funds in the amount of $12,692 have been approved for the project up to 20 weeks.

Trogdon Furniture Company, 384 Elberton, Toccoa, will hire and train 92 in the occupations of furniture assembler; shipping and receiving clerk, and woodworking machine operator. Federal funds in the amount of $113,709 have been approved for the project up to 10 months.

The JOBS program is a joint effort of the U. S. Department of Labor and the National Alliance of Businessmen to hire and train the disadvantaged jobless. Under the program, the Secretary of Labor has established procedures to enlist the resources of private industry in providing entry-level jobs and training, as well as training needed for job upgrading.

Funds are provided by the U. S. Department of Labor to help companies offset the cost of recruiting, on-the-job training and needed supportive services such as remedial and basic education, job coaching, orientation, minor medical care, and transportation.

The Georgia State Employment Service has assisted the employers in the development of the contracts and will recruit and refer certified disadvantaged persons to them. Other follow-up services will also be provided by the state agency.
Allied Polymer Corp.

Awarded Loan

Washington--The Economic Development Authority has awarded a $773,485 federal loan to the Allied Polymer Corp. in Swainsboro as part of a $1.7 million expansion program that will create 262 new jobs in the Emanuel County area, according to a joint announcement by Congressman Bo Ginn and Senators Herman E. Talmadge and Sam Nunn.

The money will be used to expand the facilities now under lease to Allied in order to increase their production of molded plastics components for furniture and electronic assemblies.

The expansion financing package will be made up of the $773,485 federal loan, an additional private loan of $700,000, a $100,000 investment by the Emanuel County Development Corp. and a $200,000 investment from Allied.

The federal loan, which is awarded to the Emanuel County Development Corp. on behalf of Allied, is repayable in 18 years at an annual interest rate of six and seven eights percent.
Ivy L. (Plunkett) Kight, Rt. 1, Broxton, had purchased the firm through Kight Enterprises, Inc., building a shipping various type boats for area dealers.

There are some II employees headed by production manager P. L. Dockery, constructing two boats a day.

"We're actually still in the process of setting up our plant," Mr. Lott says.

"We expect to increase employment to 15 to 20 and increase production to five units a day."

"This is a highly competitive business," says Mr. Lott, who acts as sales and purchasing agent. "There are several things that we feel can make the difference in this business: market location and the boats' outside appearance, durability, and type and quality of hardware."

Mr. Lott feels the Lott-Craft boats are a step ahead because the company has what he calls one of the "Top Finishers" in the business.

Retail prices on Lott-Craft range from $179 for the 12-foot flatbottom fishing boat to $1450 for the 17-ft. runabout. The company presently produces eight models.

While touring the production area, Mr. Lott explained that the molds receive six coats of mold-release wax and that there is a six-hour waiting period between each coat. The desired color of paint is then applied to the mold.

"This is the only thing I know you paint before you actually build it," he said.

The mold is then taken to the "chop" room where a gun is used to shoot a mixture on the mold. In this mixture are one-inch pieces of fiberglass, resin, a hardening agent, and a chemical cleaning agent.

M. J. Lott actually started the business at Broxton during 1968. Lott-Craft continued its operation in Broxton until January of this year when it was moved to Douglas.
An overlay of 18 ounce woven roving to add extra strength is placed on the fiber glass.

Wood parts and the plywood floor are placed and "glassed" into position. This includes the console, forecast deck and brace features.

Moving along the assembly line, the unit is wheeled into the sanding or grinding room. A workman smooths down the edges and prepares the boat for the interior jel-coat.

The final stop along the line is the finishing room where the various pieces of equipment or hardware are attached.

Spraying on fiber glass

Finishing touches put on boat
Plunkett Kight, David Lott look over completed boat

Boats ready for delivery
Production Manager P.L. Dockery

Sanding rough Edges
Grape Farming Proposed In Middle Flint Area

ROBERTA, Ga. — A number of area farmers, county farm agents and others interested in the possibility of growing grapes in the Middle Flint area met here last month.

Middle Flint Development Director Don ten Bensel said the meeting at Monarch Wine Company of Georgia was scheduled by the area planning and development commission to acquaint possible grape growers with the profit potential in grape farming and to discuss several other subjects relative to the production of grape concentrate and wine.

Host for the affair was Roy C. Hege, president of the wine company. The meeting was conducted by Hege and C. D. Spivey, Extension Horticulturist of the University of Georgia.

Dr. Spivey presented a program on the planting, care and harvesting of the muscadine grape. He said this type of a crop is excellently suited for the soil and climate conditions in three Middle Flint area counties, Webster, Marion and Schley.

After the meeting, Hege conducted a tour of the wine company’s modern distillery which is located south of Roberta. He explained processing techniques at the plant, market situations and pricing. The plant produces grape concentrates and wine in two separate operations.

Ten Bensel said the meeting was scheduled as a part of an overall agricultural project designed to improve the agricultural economy of the area particularly as it relates to grapes, pecans and fresh vegetables.

“The area planning and development commission is of course quite interested and quite deeply involved in economic development,” ten Bensel explained.

Attending the meeting in addition to Hege, Spivey and APDC representatives were Eric Newsome of Georgia Tech Industrial Development Division; county agents, Ray Payne of Webster County, Harold Daniels of Marion County and Wilson Weathersby of Schley County and seven area farmers.
EDA Project 622 - Medalist-Rawlings, Uvalda, Ga. - General view of production area for golf balls.

EDA Project 622 - Medalist-Rawlings, Uvalda, Ga. - Samples of Rawlings finished product.
EDA Project 640 - Orvis Co., Valdosta, Ga. - Former plant location.

BULK HARVESTER
THE LATEST TOBACCO HARVESTER FOR BULK GATHERING. HYDRAULICALLY OPERATED FOR QUIETNESS AND SMOOTHNESS. SEE YOUR DEALER.

LEWIS BROS. MFG. CO.
P.O. BOX 146 • Baxley, Georgia 31513
Phone 912-367-4651