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ABSTRACT

The project reported in the document focused on two aspects of career education programs. One focus was on determining effective methods for implementing career exploratory experiences for junior high school students. The second focus was on determining effective procedures for establishing a comprehensive school-based placement service for all exiting students. The project was conducted in 10 Alabama schools, five for each component, during the 1973-74 school year. The exploration component found that the most effective method for providing exploratory experiences involved a combination of on-the-job experiences, work-setting observations, visiting resource persons, a career resource center, and printed materials. The procedures followed, and results achieved by the placement component for each site are discussed in the report. Appended materials (36 pages) include: site selection criteria, program objectives and administrative guidelines, procedural suggestions for individual project site, and a followup questionnaire. (Author/NJ)

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FINAL REPORT

Project No. V361017L
Grant No. OEG-0-73-3001

DETERMINATION OF THE MOST EFFECTIVE PROCEDURES FOR
IMPLEMENTATION OF SCHOOL-WIDE JUNIOR HIGH CAREER
EXPLORATORY EXPERIENCES AND FOR THE PLACEMENT AND
FOLLOW-UP OF ALL EXITING STUDENTS K-14

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Volume I of II Volumes

Research Project in Vocational Education
Conducted Under
Part C of Public Law 90-576

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Division of Vocational Education and Community Colleges
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February 1975

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SUMMARY OF THE REPORT

A. Time Period Covered

The final report of the project covers the period from June 1, 1973 to November 30, 1974.

B. Goals and Objectives of the Project

The goals and objectives for the project were separated into two groups, with one set of goals and objectives for the exploration component and another for the placement component. The goals and objectives for the exploration component were as follows:

1. Determination of all available community or area resources capable of providing specific or a variety of career exploratory experiences for junior/high school children enrolled in the public schools of the State of Alabama;
2. Development of alternative methodologies whereby these resources can best be utilized in an instructional setting for the greatest benefit of the largest number of students;
3. Implementation of the most promising of these alternative methodologies in carefully controlled instructional settings; and
4. Determination of the relative worth of each alternative methodology in providing an individual student with a broad-based program of career exploration at the junior high school.

The goals and objectives for the placement component were as follows:

1. Development of a system for identifying and cataloging potential school leavers;
2. Development of follow-up instrumentation for all exiting students with emphasis placed on grades 7-12;
3. Development and testing in several school settings a comprehensive placement program providing for the placement of every exiting student in a job, a post-secondary occupational program, or a baccalaureate program;
4. Determination of state, community, and area resources capable of providing specific or a variety of employment opportunities for potential school leavers;

5. Determination of state, community, and area resources capable of providing specific or a variety of post-secondary and/or baccalaureate opportunities for potential school leavers;
6. Development of alternative methodologies whereby these resources can be intermeshed with school leavers' identified competencies and abilities;
7. Implementation of the most promising of these alternative methodologies in carefully controlled settings; and
8. Determination of the relative worth of each alternative methodology in providing an individual student with a realistic placement upon leaving the school setting.

C. Procedures Followed

Project activities were developed in ten specific sites selected from among thirty-two school systems submitting proposals for participation in the project. Five sites devoted their efforts toward career exploration while the other five sites oriented their efforts toward the placement and follow-up component. Coordination of the total project was the responsibility of members of the Research Coordinating Unit, Division of Vocational Education and Community Colleges, Alabama State Department of Education.

Project activities in the exploration component were developed in junior high schools or middle schools. The grades encompassed at this level ranged from grade 5 to grade 10. A sample of 1,223 students was randomly selected from grades 5 through 10 as the student population in the exploration component. Placement component activities were developed at the high school level. Graduating seniors and other students in grades 7-12 who were identified as potential dropouts and who could benefit from employment comprised the student population in the placement component.

In the exploration sites the local school administrators, counselors, and teachers carried out project related activities as part of their regular duties. In each of the placement sites a full-time placement coordinator was supported by project funds.

The five exploration sites used the Career Maturity Inventory, by John O. Crites, as the pre-test and post-test instrument to determine whether or not any changes occurred in student attitude and knowledge as a result of participation in the various exploration activities.

D. Results and Accomplishments

1. Exploration Component

- a. Direct contacts with business and industry were made to establish lines of communications and to determine the potential involvement of the agency with the career education program. Business and industry involvement ranged from furnishing materials to conducting tours for on-site visits by students.
- b. The personal involvement of classroom teachers in tours of businesses and industries as an orientation to career exploration activities proved effective at one site for the motivation of teachers.
- c. The students involved in the exploration component in most cases sought career education materials with enthusiasm in an effort to learn more about careers.
- d. The career education efforts at each of the sites involved the community and parents to a much larger degree than in the past.
- e. A wide variety of instructional and public relations methods proved effective in carrying out career exploration activities.

2. Placement Component

- a. Identification of resources capable of providing employment or further education and training varied significantly according to the demographic characteristics of the site. In the rural sites little or no career education activities had been conducted previously, so basic information was gathered through personal contacts with businesses. In the metropolitan site more emphasis was placed on working through existing organizations and agencies. Personal visits were made to the major employers. The medium size school system utilized an advisory committee to assist in identifying placement opportunities. All of these approaches worked well, but personal contact with businesses seemed to be valued more highly by the coordinators.
- b. Identification of potential dropouts was made through close coordination with the high school teachers. Administrative procedures for reporting and accounting for dropout students were improved. Emphasis was placed on working with these students to keep them in school or to ease their transition into the world of work. In some sites new course offerings were developed to meet the needs of the

potential dropout.

- c. Each site in the placement component developed a procedure for identifying placement needs and interests of exiting students. Students were interviewed or surveyed in the fall and again in the spring.
- d. In the metropolitan site the survey of the students was conducted by the counselors, with the placement coordinator consolidating this information for the system. Standardized interest inventories were also used to assist the coordinator and counselors in ascertaining student interest.
- e. Field trips to technical institutes and colleges, career and college days sponsored by the school, and individual counseling sessions were some of the procedures used to intermesh students' placement interests with resources available. This particular technique resulted in increased community involvement and support for the educational endeavors.
- f. Procedures and instrumentation for accounting for and following up the students who exit the school system were developed by each site in the placement component with cooperation of the state staff. Findings from the follow-up of the students indicated that friends and family members were the most helpful source of assistance in finding a job. School based sources such as counselors, teachers, etc. were second in helpfulness in finding a job. Assistance from the State Employment Service ranged from zero percent at the metropolitan site to eleven percent at the medium sized site.
- g. Direct contacts with business and industry were made to establish lines of communication and to determine the potential involvement of the agency with the career education program. Involvement ranged from furnishing materials to conducting tours for on-site visits by the students.
- h. Classroom teacher involvement in tours, etc. as an orientation to career exploration activities is an effective motivating force to get teachers involved.

E. Evaluation

The third party evaluation of this project was under the directorship of Dr. M. Ray Loree, University of Alabama.

The evaluation report was divided into three components: management, exploration, and placement. Process and product evaluation were made for both the exploration and placement components.

1. Management Component

Management objectives for the project were met. Close contacts were kept with the local personnel through weekly telephone conferences, periodic on-site visits, a "Reports from the Field" newsletter, and workshop sessions. This permitted an interchange of ideas which made for more effective operation.

2. Exploration Component

Product evaluation, based on results of testing with the Career Maturity Inventory, was inconclusive. Major emphasis was placed on process evaluation. The process evaluation examined the many varied procedures used for exploration experiences.

3. Placement Component

The evaluation of the placement component also emphasized process rather than product evaluation due to the lack of a formal "measure" of program effectiveness. However, experiences gained through utilization of diverse procedures resulted in the listing of several procedures which seemed to work well for developing and operating a career placement program. A model of career placement, developed by Dr. Ralph Roberts of the University of Alabama, came as a result of the placement component effort.¹ This model describes placement as an ongoing process rather than an "event."

F. Conclusions and Recommendations

1. Career exploration programs build on a basis of several years of preparation in career awareness activities. When these experiences have not been available to the students, it is difficult to carry on the exploration phase of career education.

¹See Volume II, Attachment N for a copy of the model.

2. Many methodologies can be utilized for incorporating the resources into career education. The most effective of these methods appears to be site visits. When this is not practical or feasible, the video-tape or sound-film type presentation may be an excellent alternative.
3. A school-based placement service should be administered from a central office which encompasses all exiting students within a county, a metropolitan area, or other commuter area.
4. There is a need for a central person to be in charge of arranging field trips, resource persons, and other resources for maximum efficiency.
5. Schools should place more emphasis on developing the job hunting skills that students should possess. The placement coordinators found that few students with whom they had contact possessed these skills.
6. School systems should employ some efficient system of follow-up of its students, including dropouts. Information from this system should be made available to curriculum planners for consideration in curriculum revision.
7. Personal contact of educators with business and industrial leaders should be encouraged as a most effective means of establishing the lines of communication for identifying resources capable of providing exploratory experiences and placement for students.

INTRODUCTION

I. THE PROBLEM AREA

A. FOCUS OF THE PROJECT

The project reported in this document focused on two aspects or components of career education programs as they were currently being developed in many school systems at the time of the project. One focus of project activities was on determining effective methods for implementing career exploratory experiences for junior high school students. The second focus was on determining effective procedures for establishing a comprehensive school-based placement service for all exiting students. The project was conducted in ten Alabama public school systems, five in the exploratory component and five in the placement component, during the 1973-74 school year.

Methods for implementing career exploration were conceptualized as representing a continuum that ranged from "concrete" to "abstract." Concrete methods were defined as those requiring maximum sensory and personal involvement on the part of students, while abstract methods were defined as those requiring minimum sensory and personal involvement on the part of students. Five methods, or levels on the continuum, were described as follows: level I, actual on-the-job experiences; level II, work-setting observations, such as field trips; level III, resource person visiting classroom; level IV, a school career resource center equipped with movies, slide films, tapes, etc.; and level V, printed materials available in the library for browsing. The exploration component of the project attempted to determine procedures for implementing effective career exploratory methods for junior high school students.

Placement, as conceptualized in the project, was a comprehensive school-based placement service. The goal of the comprehensive placement service was to provide assistance to all students, graduates as well as dropouts, in making the next step after secondary school. Placement could be in a wage earning job; it could be educational placement in any educational institution or training program; or it could be placement in any unpaid employment situation satisfactory with the career intentions of the student. Comprehensive placement was also viewed as being concerned with part-time employment for students still in school. The placement component of the project sought to determine effective procedures for establishing a placement service in secondary schools.

B. GOALS AND OBJECTIVES

The goals and objectives for the project were stated in the amended application¹ as the "scope of work." The scope of work² for the

¹See Appendix A for a sample of the amended application.

exploration component, as stated in the amended application, was as follows:

(1) Determination of all available community or area resources capable of providing specific or a variety of career exploratory experiences for junior high school children enrolled in the public schools of the State of Alabama;

(2) Development of alternative methodologies whereby these resources could best be utilized in an instructional setting for the greatest benefit of the largest number of students;

(3) Implementation of the most promising of these alternative methodologies in carefully controlled instructional settings;

(4) Determination of the relative worth of each alternative methodology in providing an individual student with a broad based program of career exploration at the junior high school

The scope of work for the placement component, as stated in the amended application, was as follows:

(1) Development of a system for identifying and cataloguing potential school leavers;

(2) Development of follow-up instrumentation for all exiting students with emphasis placed on grades 7-12;

(3) Development and testing in several school settings a comprehensive placement program providing for the placement of every exiting student in a job, a post-secondary occupational program, or a baccalaureate program;

(4) Determination of State, community, and area resources capable of providing specific, or a variety of employment opportunities for potential school leavers;

(5) Determination of State, community, and area resources capable of providing specific or a variety of post-secondary and/or baccalaureate opportunities for potential school leavers;

(6) Development of alternative methodologies whereby these resources could be intermeshed with school leavers identified competencies and abilities;

(7) Implementation of the most promising of these alternative methodologies in carefully controlled settings;

(8) Determination of the relative worth of each alternative methodology in providing an individual student with a realistic placement upon leaving the school setting.

II. METHODOLOGY

A. SITE SELECTION

The amended application called for the exploration component of the project to be developed in five school systems and for the placement component to be developed in five school systems. The Director of the Division of Vocational Education and Community Colleges, Alabama State Department of Education, announced, by letter, to all local superintendents of education that the State of Alabama had been awarded funds through Part C, Section 131(a), of Public Law 90-576 for the research project and invited proposals from all systems interested in participating in one or both of the components.¹ Thirty-two public school systems submitted proposals. A committee within the Division of Vocational Education and Community Colleges selected ten systems to participate in the project.² The selected participants were notified by letter, dated July 29, 1973. Early in October one of the sites selected to participate in the exploration component notified the state project director that it was declining the invitation to participate in the project. The selection committee again reviewed the proposals which had been submitted and selected another school system.

The five school systems in the exploration component were Etowah County, Decatur City, Cullman City, Bessemer City, and Marion City. The five school systems in the placement component were Phenix City, Coffee County, Mobile County, Geneva County, and Covington County. The total project was coordinated by staff members of the Research Coordinating Unit, Division of Vocational Education and Community Colleges, Alabama State Department of Education.

The project budget provided that each system in the exploration component would receive approximately \$7,500 to purchase classroom materials and to provide other support to the career education activities. In the placement sites the project budget provided for reimbursing the salary and travel expenses of a placement coordinator from September 1, 1973 to August 31, 1974.

B. GENERAL PROJECT DESIGN

The amended application called for a pre- and post-testing of students involved in each component of the project. In the early stages of the project, a research design was developed which utilized the Before and After Control-Group Design, as described by Kerlinger (1967, pp. 308-311). The design paradigm may be depicted as

¹See Appendix B for a sample of the letter to local superintendents.

²See Appendix C for a copy of the criteria used for site selection.

$$\begin{array}{rcccl}
 & Y_b & X & Y_a & \text{(Experimental)} \\
 \boxed{R} & \hline & & & \\
 & Y_b & & Y_a & \text{(Control)}
 \end{array}$$

where, \boxed{R} = random selection and assignment of students to experimental and control groups

Y_b = pre-test scores

X = treatment

and, Y_a = post-test scores.

The elements of the research design were presented to all ten participating school systems. However, it soon became obvious to the state project staff that, because of a number of factors, including size of the school system, class schedules, and the fact that the school year had already started, the criteria of randomness and effective control for the research design could not be strictly observed in the project sites. Specific design related problems and how they were resolved are discussed in later sections of this report dealing with each of the two components. All systems in the exploration component and most systems in the placement component identified an experimental group and a control group and attempted to preserve the integrity of the design to the extent possible. However, the lack of congruence between the research design and its implementation produced a major limitation on the generalizability of the products of the research project. For this reason this report will give additional attention to program process or formative activities in each of the two components.

C. POPULATION AND INSTRUCTIONAL STAFF

Project activities in the exploration component were developed in junior high schools or middle schools. The grades encompassed at this level varied from grade 5 to grade 10. However, grades 7 and 8 were represented in all five participating systems and can be considered the principal target population for developing programs for career exploratory experiences. As a general guide, the participating systems were expected to involve in project activities about 20 percent of the enrollment at each grade level. Placement component activities were developed at the high school level. Graduating seniors and other students in grades 7-12 who were identified as potential dropouts and who could benefit from employment comprised the student population in the placement component. Enrollment data and a summary of numbers of students participating in each component are presented in detail in later sections dealing with the respective components.

In the exploration sites the local school administrators, counselors, and teachers carried out project related activities as part of their regular administrative and teaching duties. In the placement sites a full-time placement coordinator was supported by project funds.

A complete summary of the instructional staff in each component of the project is presented in later sections.

D. INSTRUMENTATION

The third party evaluator of the project recommended the Career Maturity Inventory (C.M.I.), developed by John O. Crites and published by CTB/McGraw-Hill, for use in the exploration component to measure changes in student behavior. The C.M.I. is a two-part instrument. The Attitude Scale contains fifty statements about attitudes and feelings toward work. The respondent indicates a T if he agrees with the statement or a F if he disagrees with the statement. The second part of the C.M.I. is the Competency Test which consists of five sub-tests, each containing twenty items. The five sub-tests are concerned with knowledge about occupations and the decisions involved in choosing a career. The five parts are labeled knowing yourself, knowing about jobs, choosing a job, looking ahead, and what should they do? A typical item in all parts of the Competency Test describes a person, or an occupation, or a situation and then presents five possible answers. The respondent indicates which is the best answer. The C.M.I. was administered as a pre-test and as a post-test to the experimental and control groups in all five sites in the exploration component.

No standardized instrument was recommended for use as part of the project activities in the placement component. Counselors in the participating systems were free to utilize whatever interest inventories, aptitude tests, etc. that were part of their regular testing program. The state project staff developed a follow-up questionnaire which was used in all placement sites to gather uniform data from students at the close of the project. The questionnaire consisted of fourteen major items with a number of sub-items which the respondent completed if they applied to him or her.¹

E. MANAGEMENT PROCEDURES

1. PERFORMANCE OBJECTIVES

The state project staff asked each participating system to develop a statement of objectives for the project in their system. Examples of objectives written in performance terms were developed by the state project staff and made available to all sites. Assistance was provided to the local personnel as needed in developing a satisfactory statement of local project objectives. See Appendices D and E for samples of performance objectives that were developed by the state project staff as guides for the local project personnel.

2. PROJECT CONFERENCES

A total of three general conferences were held involving local project personnel, state project staff, and the third party evaluator.

¹See Appendix I for a sample of the follow-up questionnaire.

The first conference was held in January 1974. The general purpose of the conference was to assess the progress made in the early stages of the project and to plan for any revisions in activities projected for the remainder of the project. A major portion of the conference was given to discussion of questions and problems which each system had identified prior to the conference. Separate discussions were held for questions from the exploration component and for questions from the placement component. See Appendix F for a copy of the questions identified by the LEA project personnel.

Near the end of the project, in August 1974, separate conferences were held for the exploration component and for the placement component. The principal purpose of these conferences was to identify in writing and to discuss the specific procedures which each school system had developed and found to be effective. See Appendices G and H for lists of the effective procedures for the exploration and placement components, respectively, as they were recorded at the conference by LEA project personnel.

3. COMMUNICATIONS TECHNIQUES

The state project staff utilized a number of techniques for facilitating communication between the participating systems, the state project staff, and the third party evaluator. The techniques included:

- scheduled weekly phone calls The state project staff held weekly phone conferences at regularly scheduled times with each of the local systems. A weekly call was also made to the third party evaluator.
- on-site visits A member of the state project staff visited each school system once every four to six weeks or more frequently if it seemed appropriate.
- monthly reports Each participating school system was asked to submit a one-page summary of project activities each month on a form developed by the state project staff.
- newsletters A number of issues of a short newsletter, called "Reports From the Field," were developed and circulated to all administrators, placement coordinators, counselors, and teachers participating in the project.

4. SUMMARY OF PROCEDURES

A chronological summary of the major procedural steps which the state project staff observed in conducting the project is presented below. The steps have been grouped according to the time periods covered by the quarterly reports which were submitted to the U. S. Office of Education.

June - August 1973

1. Collected initial socio-economic and educational data from applicant school systems.

2. Selected ten local education agencies to participate in the research activities
3. Employed a project coordinator
4. Secured and reviewed third party evaluation proposals
5. Developed a research design
6. Sought approval of instrument recommended by third party evaluator for measuring appropriate student outcomes

September - November 1973

7. Employed project staff associate.
8. Conducted site visits to all participating systems to (a) secure signatures on contracts between the Alabama State Department of Education and the LEA, (b) orientate LEA personnel to requirements of the research design, (c) explain use of reporting forms, (d) clarify financial reimbursement procedures, and (e) describe pre-testing procedures
9. Distributed pre-test instruments to exploration sites
10. Began planning for participants conference

December 1973 - February 1974

11. Received completed materials from the pre-testing in exploration component. Prepared and submitted C.M.I. answer sheets to CTB/McGraw-Hill for scoring
12. Conducted participants conference in early January
13. Consulted with third party evaluation team regarding ways of revising research design in order to include more process evaluation
14. Assisted project sites in developing local project objectives
15. Collect and distributed to project sites reports of and materials developed by other career education and placement projects in other parts of the country

March - May 1974

16. Continued frequent visits to all sites
17. Cooperated with the metropolitan system in the placement component in planning and conducting a local conference aimed at developing a model for post-secondary school placement
18. Developed follow-up questionnaire for use in placement sites
19. Received completed materials from the post-testing in the exploration sites. Began assembling answer sheets for scoring

June - August 1974

20. Submitted C.M.I. answer sheets to CTB/McGraw-Hill for scoring of post-test responses
21. Distributed follow-up questionnaires to placement sites and assisted placement coordinators in drawing random samples for follow-up purposes
22. Prepared formats or guides for final reports from school systems in the exploration component and from those in the placement

- component
23. Planned and conducted an evaluation conference for personnel from each of the two components of the project
 24. Received final reports from all project sites

September - November 1974

25. With third party evaluation team, analyzed pre- and post-test responses on the C.M.I. from schools in the exploration component
26. Gathered reports of project related expenses from all sites prior to preparation of final accounting of project expenditures
27. Received third party evaluator's final report
28. Began preparing final report of project
29. Formulated plans for dissemination of final report of project

EXPLORATION COMPONENT

I. ORIENTATION TO EXPLORATION COMPONENT

A. OBJECTIVES OF EXPLORATION COMPONENT

The general objective of the exploration component, as reflected in the project title, was to determine effective procedures for implementing career education exploratory experiences at the junior high school level. More specific objectives were detailed in the amended application¹ as the "scope of work" and included the following:

1. Determination of all available community or area resources capable of providing specific or a variety of career exploratory experiences for junior high school children enrolled in the public schools of the State of Alabama;
2. Development of alternative methodologies whereby these resources could best be utilized in an instructional setting for the greatest benefit of the largest number of students;
3. Implementation of the most promising of these alternative methodologies in carefully controlled instructional settings;
4. Determination of the relative worth of each alternative methodology in providing an individual student with a broad-based program of career exploration at the junior high school.

B. PARTICIPATING SYSTEMS

Five public school systems in Alabama participated in the exploration component of the project during the 1973-74 school year. The systems included four city systems and one county system located in northern and central Alabama. The school systems were Cullman City, Marion City, Decatur City, Bessemer City, and Etowah County. In order that the systems remain anonymous throughout the presentation of procedures and findings, code numbers were randomly assigned to the five systems. In the remainder of the discussion, the systems participating in the exploration component will be referred to as Systems I, II, III, IV, or V.

The project budget provided that each participating system in the exploration component would receive approximately \$7500 to purchase classroom materials and to support other methods developed for career education exploratory activities. The project budget did not provide salaries for local personnel in the exploration component. Administrators, counselors, and teachers were expected to develop and implement new career exploratory methods as part of their regular duties.

¹See Appendix A for a sample of the amended application.

C. POPULATION

The Alabama State Department of Education reported that in September 1973 the total enrollment in grades 1-12 in each of the systems in the exploratory component was as follows:

<u>System</u>	<u>Total Enrollment, Grades 1-12, September 1973</u>
I	1002
II	8532
III	9478
IV	6516
V	2736

Project activities in the exploration component were developed for students at the junior high and middle school level. However, the particular grades represented at this level varied among the participating systems from grades 5 to grade 10. The total enrollments in grades from which students who participated in the project were selected are presented in Table 1. The data indicate that a total of approximately 8072 students comprised the population from which selections were made for participation in the research activities in the exploration component. It may be seen that grades 7 and 8 were the only grades represented in all five systems.

Approximately 40 teachers, 5 counselors, and 5 administrators were included directly in project activities in the exploration component. However, in all systems there were additional teachers, counselors, and administrators who supported and contributed their time to project related activities.

D. INSTRUMENTATION

The Crites Career Maturity Inventory was recommended by the third party evaluator as an appropriate instrument to measure changes in student attitude and knowledge as a result of participating in the project. The instrument was administered as a pre-test in November and December and as a post-test in May to students who had been identified as being in either the experimental or the control group. Analysis of the responses was the responsibility of the third party evaluator, primarily. His findings are reported in Volume II of this report.

TABLE 1

TOTAL 1973-74 ENROLLMENTS IN GRADES FROM WHICH STUDENTS
WERE SELECTED FOR PARTICIPATION IN THE EXPLORATION
COMPONENT, BY RACE AND BY SYSTEM

SYSTEM	GRADE	NON-WHITE		WHITE		TOTAL	
		NO.	% OF TOTAL	NO.	% OF TOTAL	NO.	PERCENT
I	7	81	66.4	41	33.6	122	100.0
	8	65	63.1	38	36.9	103	100.0
	9	43	55.8	34	44.2	77	100.0
	10	66	66.0	34	34.0	100	100.0
TOTAL		255	63.4	147	36.6	402	100.0
II	7	5	0.7	690	99.3	695	100.0
	8	12	1.8	652	98.2	664	100.0
	9	5	0.8	618	99.2	623	100.0
	TOTAL	22	1.1	1960	98.9	1982	100.0
III	6	108	13.5	693	86.5	801	100.0
	7	141	16.3	726	83.7	867	100.0
	8	125	14.3	752	85.7	877	100.0
	TOTAL	374	14.7	2171	85.3	2545	100.0
IV	5	404	68.9	182	31.1	586	100.0
	6	450	71.7	178	28.3	628	100.0
	7	426	69.5	187	30.5	613	100.0
	8	397	68.3	184	31.7	581	100.0
	TOTAL	1677	69.6	731	30.4	2408	100.0
V	6	0		265	100.0	265	100.0
	7	0		229	100.0	229	100.0
	8	0		241	100.0	241	100.0
	TOTAL	0		735	100.0	735	100.0
TOTALS FOR ALL SYSTEMS		2328	28.8	5744	71.2	8072	100.0

Source: Alabama State Department of Education

II. PROCEDURES AND RESULTS

A. IMPLEMENTATION OF PROJECT RESEARCH DESIGN

1. IDENTIFYING SAMPLE GROUPS

In accordance with the amended application which called for a pre- and a post-testing of project participants, a research design was developed (see pages 3 and 4 of this report) which called for a random selection of experimental groups and control groups prior to any testing. Participating systems were advised by the state project staff to make a 20 percent random selection of students, stratified by grade level. Half of the identified students were to be randomly assigned to the experimental group and half to the control group.

While this procedure was followed in some cases, project personnel in most systems found it not to be feasible to select students in the suggested manner. Major difficulties arose from the fact that the school year had already begun; consequently, classroom assignments had been completed. The most practical course of action in some systems was to either randomly select or merely assign intact classroom groups to participate in the project activities, with other classroom groups selected or assigned to serve as control groups. Intact groups may, of course, become a source of contamination in the findings if each group is not representative of the population. The state project staff believes that not all groups labeled as experimental or control in the exploration component were truly representative of the student population of a particular school system.

TABLE 2
NUMBER OF EXPERIMENTAL GROUP AND CONTROL GROUP STUDENTS
COMPLETING PRE-TEST OF CAREER MATURITY INVENTORY, BY
GRADE LEVEL AND BY SYSTEM IN EXPLORATION COMPONENT

SYSTEM	GRADE 5		GRADE 6		GRADE 7		GRADE 8		GRADE 9		GRADE 10		TOTAL	% OF ENROLLMENT TESTED**
	C*	E*	C*	E*	C*	E*	C*	E*	C*	E*	C*	E*		
I					28	10	27	14	17	8	27	13	144	35.8
II					48	42	43	59	41	48			281	14.2
III			20	22	24	28	34	33					161	6.3
IV	80	26	27	49	59	26	56	91					414	17.2
V			34	35	26	25	17	25					162	22.0
TOTAL	80	26	81	106	185	131	177	222	58	56	27	13	1162	14.4

*C = Control Group, E = Experimental Group

**See Table 1 For Total Enrollments In Participating Grades For Each System.

The numbers of students who were identified as being in the experimental or control groups and who completed the Career Maturity Inventory are shown in Table 2. The data are presented by grade level for each system, together with an indication of the percent of the total enrollment in the participating grades of each system that were pre-tested with the Career Maturity Inventory.

After the experimental and control groups were identified, local project personnel made reasonable and generally satisfactory efforts to assure that the control groups would not be contaminated by experimental group activities. Prior to the project and continuing through the project year, System II had been integrating career-education concepts into the regular curriculum throughout the system. While System II identified an experimental and control group for C.M.I. testing purposes, it was not possible to maintain a group apart from the on-going curriculum revision in the system. The entire approach to project activities in System II was unique and will be described in a later section of this report.

2. DEVELOPMENT OF EXPLORATORY METHODS

The "alternative methodologies" called for in the amended application were interpreted and defined as representing a continuum ranging from "concrete" to "abstract." Concrete methods were defined as those requiring maximum sensory and personal involvement on the part of students, while abstract methods were defined as those requiring minimum sensory and personal involvement on the part of students. Five methods, or levels on the continuum, were described as follows: first level, actual on-the-job experience; second level, work-setting observations; third level, resource person visiting classroom; fourth level, a school career resource center equipped with movies, slide films, tapes, etc.; and fifth level, printed materials available in the library for browsing.

The intention of the state project staff in the early weeks of the project was for each of the five exploration sites to emphasize one of the five methods. However, this proved not to be feasible. Reassessment of the project goals was made and a somewhat different general approach was adopted. Rather than attempting to emphasize a "pure" method in a particular site, it was decided that each system would develop whatever method or combination of methods that would allow it to utilize most effectively the individual geographic and industrial characteristics found in the city or county. In other words, emphasis was to be put on finding ways of capitalizing on the unique resources in each locale for career exploratory experiences, rather than attempting to prove the worth of any one method of delivering information.

B. FINDINGS

1. GENERAL

The general finding in all participating systems was that a combination of the defined methods appeared to be most effective. The first

level method, actual on-the-job experience, could not be achieved in the literal sense, because of the young age of the students involved. However, a degree of realistic "hands-on" experience was provided in some systems by arranging for students to spend time at a technical school where each visiting student was paired with one of the technical school students. The second level method, work-setting observations, was utilized in a variety of ways by all systems. One system involved parents in providing transportation and conducting field trips to various sites. This enabled as few as two students at a time to observe people working in occupations they wished to explore. Field trips exclusively for teachers were utilized. Students and teachers were encouraged to ask questions of the people they were observing on all field trips. The third method, resource people, was an important part of the career education program in all systems. All systems reported that most people in the business community were cooperative in sharing their time and facilities. The remaining methods, audio-visual materials and printed materials, were utilized to support all of the other methods. Teachers reported that when they combined methods, such as audio-visual materials with a field trip or an on-site visit with interviews by resource persons, the students appeared to respond with more enthusiasm and greater understanding of their own interests and abilities.

2. DESCRIPTION BY SYSTEM

a) System I. The method which seemed to receive primary emphasis in System I was work setting observations. A large number of field trips were taken throughout the year to business and industrial sites located in and near the city served by System I. Certain older students in grades 9 and 10 were able to participate in actual on-the-job experiences by working during school vacation periods. Some students were able to receive limited "hands-on" experiences through a school laboratory equipped with commercial sewing machines.

b) System III. System III utilized the Kuder E General Interest Survey to help students identify their interests. Students were generally grouped into ten interest areas, but a great deal of flexibility was provided to assure that students were not "locked into" a specific area. Field trips and resource persons were arranged according to the interest areas of the students. Parents provided most of the transportation for field trips which enabled project personnel to achieve nearly individualized field trip experiences.

c) System IV. System IV attempted to emphasize methods for providing "hands-on" experiences for students in the experimental groups. Early in the school year, teachers were thoroughly oriented to the purpose of the project as part of a two-day workshop which included participation in field trips to a number of business and industrial sites in the area. In providing "hands-on" activities, project personnel made extensive use of the facilities of two technical schools in the area. Arrangements were made with the instructors in the technical schools whereby the visiting students from the project could be assigned to one of the technical school students who could act as a

guide, answer questions, and demonstrate equipment. Career fairs were also used to bring people and equipment from various occupations to the students. An important part in the planning of a career fair was the involvement of students, who selected from a previously prepared list of occupations those areas which they were most interested in having represented.

d) System V. Local project personnel in System V believed that a successful career education program required a three-pronged approach; one part directed toward students, one part directed toward teachers, and a third part directed toward parents. The approach for students did not concentrate on any one of the defined methods, but rather attempted to achieve a balanced use of the techniques available in all methods. The approach to teachers included: a general orientation of all teachers to career education concepts and how they might be implemented, development of attitudinal checklists for teachers in order to note change in teacher attitudes regarding career education, encouragement for teachers to visit other career education programs, and directing the 1973-74 in-service training toward development of career education concepts in middle school curricula. The approach for parents included presentations by the principal and guidance counselor to groups of parents concerning career education and involving parents in a "volunteer parents" program designed to assist individual students.

e) System II. As was mentioned earlier, System II had instituted a system-wide effort to integrate career education information into the total curriculum prior to their participation in the exploration component of the study reported herein. The constant influx of career information made any long-term research project involving a control-experimental design difficult to conduct with any degree of validity. As a result, System II embarked on a process to assess the merits of various teaching-learning procedures utilizing a short-term experiment generally lasting only a period or at most a school day. This approach allowed the local project personnel to get data relatively free of contamination from external sources.

Edited excerpts from the final report of System II describing their procedures and results are presented below.

"Initially, the project began with an analysis of occupational opportunities available in the immediate Appalachian region of Northeast Alabama. Data for this analysis had been accumulated to a great extent by the system. Additional data was secured from the State Employment Service, Chamber of Commerce, and other state and local agencies having information related to occupations available in this immediate area. This data enabled the project to determine some key occupational areas which employ large numbers of students exiting the school system.

"In order to supply students with an opportunity to explore these occupational areas, the project developed a four-step plan to determine the relative merit of different teaching-learning activities.... Activities in Step I included "hands-on"

experiences, extended visitations of one day or more, or at the lowest level of this step, a walk-through visit. Step number III involved the development of either video-tape or super 8 sound film. Every effort was made to depict both visually and auditorily the exact experiences participated in by students in Step I. Step number II utilized synchronized taped filmstrip presentations as the disseminator of information. Generally, the audio part of this activity was taped at the same time the super 8 sound film was being shot. The filmstrip was made simultaneously with the super 8 sound film with every effort being made to depict a stop-action visual description consistent with the super 8 sound film and with what the walk-through students and extended visit students would have an opportunity to observe. The fourth step involved very abstract experiences of either a resource person or teacher lecturing about the occupational area under consideration. By systematically proceeding through these teacher-learning activities, the project personnel hoped to determine which category of activity produced the greatest cognitive gains....

"Within the concept of developing teaching-learning procedures based on the four-step plan described above, the local project personnel surveyed area business and industrial sites to determine which activity the site could provide, when the activity could be provided, and what stipulations or restrictions would be imposed.... Upon establishing the degree of cooperation and acceptance desired by both the LEA and the site, project personnel scheduled filming sessions, visitation dates, dates for "hands-on" activities, and dates for resource persons from the site to visit the schools.

"After completing an orientation with the site, organizing and filming the site, and in many cases revisiting the site to assure the project that the desired dates and/or instructional material were accurate and depicted the desired activities, pre- and post-tests were developed to assess the cognitive gains resulting from the various teaching-learning activities. Each activity included a pre-test designed to establish pre-entry knowledge of the occupation, followed by instructional activities related to the career or careers to be observed. Post-tests were then administered to determine cognitive gains resulting from the instructional activities....

"The selection of participants for each category in the control-experimental testing procedure was made by using a stratified random sample of the students for each grade level. (Sample size ranged from 6 to 12, with an average of about 9.) Each experimental procedure was conducted over a minimum period of time ranging...from one hour to

usually less than one school day. These experiments covered a small restricted area of information with intensive instructional activities....

"To summarize the procedure, project personnel began with an assessment of appropriate sites for explorations followed by educational agency-industry interactions in developing super 8 sound films and synchronized filmstrip presentations, scheduling visits, organizing "hands-on" activities, and scheduling a time for site representatives to visit the school. After conducting the preliminary activity, the project utilized a stratified random sampling procedure to identify various experimental and control groups. On a pre-scheduled date an experimental activity was conducted. Within this experimental activity, one group was involved in either "hands-on" activities, site visitations, or possible extended visitation. A second group was involved in viewing a super 8 sound film. A third group participated in the experiment by viewing a synchronized sound filmstrip. A fourth group listened to either a resource speaker or a teacher who had visited and was thoroughly familiar with the career area under consideration.... Students in the control group were not allowed to view the movies or filmstrips and were not allowed to hear the classroom speaker.... Prior to the instructions, each group was administered a pre-test to determine pre-entry knowledge. After the instructional activities were completed, a comparable version of the pre-test was administered to determine the cognitive gains occurring as a result of the instructional activities."

Four different businesses in the community were utilized in conducting experimental activities, including a radio station, a local manufacturing company, a concrete and metal pipe company, and a newspaper. Five experiments were conducted. The results, as reported by System II project personnel, are presented in Tables 3 through 12 in a two-table format for each experiment. The first portion presents the results of t test analyses of pre- to post-test gains, as determined by using locally developed instruments for evaluating each instructional method. The second portion presents the results of comparisons of mean gains observed for the instructional methods that were tested. The results of the first experiment are presented in Tables 3 and 4.

Four different types of activities were conducted at the radio station including on-site visitation, synchronized tape filmstrip, super 8 sound movie, and resource speaker. In Table 3 it can be seen that significant gains were obtained in cognitive information from the pre-test to the post-test with all four activities. In comparing differences of gain for the various activities, as reported in Table 4, it was found that students visiting the radio station made a significantly higher gain than students who viewed the filmstrip. However,

TABLE 3
 SUMMARY OF t TEST ANALYSES OF PRE- TO POST-TEST
 GROUP MEAN GAINS OBSERVED WITH FOUR INSTRUCTIONAL
 METHODS IN FIRST "RADIO STATION" EXPERIMENT, GRADES
 7 AND 8 IN SYSTEM II

METHOD	N	MEAN GAIN	VALUE OF t	SIGNIFICANCE LEVEL
On-Site-Visitation	7	9.6	7.89	<.05
Filmstrip With Synchronized Tape	7	5.3	5.46	<.05
Super 8 Sound Movie	6	9.0	6.84	<.05
Representative In Classroom	6	9.0	13.17	<.05
Control	10	0.9	1.41	ns

TABLE 4
 RESULTS OF COMPARISONS OF GROUP GAINS OBSERVED
 WITH METHODS REPORTED IN TABLE 3

	ON-SITE VISIT	FILM STRIP	SUPER 8 MOVIE	CLASSROOM REPRESENTATIVE
On-Site Visit		t=2.76*	t= .32	t= .41
Filmstrip			t=2.28	t=3.12**
Super 8 Movie				t=0
Classroom Rep.,				

*Significant at .05 Level in Favor of On-Site Visit

**Significant at .05 Level in Favor of Classroom Representative

there was no significant difference between gain scores of students who made the visits and gain scores of students who viewed the super 8 sound movie or who heard the classroom representative. There was not a significant difference between gain scores for students who viewed the filmstrip and students who viewed the super 8 sound movie. Significant difference was evidenced between gains for students seeing the filmstrip and for students who heard the classroom representative, with the students who heard the speaker making the higher scores. There was no significant difference between gains of students seeing the movie and of students hearing the representative.

Results from this experiment indicated that the on-site visit and classroom representative, who was from the radio station, were more effective in obtaining cognitive gains than was the filmstrip presentation. The super 8 sound movie appeared to be the next best disseminator of career information.

A second experiment was conducted with different groups of students using the radio station again, but this time an on-site visit was not conducted, and the classroom representative was a member of the central instructional staff who had visited the career station. Results, as reported in Tables 5 and 6, indicated that students who viewed the super 8 sound movie made significantly higher gains than students who watched the synchronized tape filmstrip. There was no significant difference between gains of students seeing the movie and those hearing the representative; also there was no difference between gains of students viewing the filmstrip and those hearing the representative.

TABLE 5
SUMMARY OF t TEST ANALYSES OF PRE- TO POST-TEST
GROUP MEAN GAINS OBSERVED WITH THREE INSTRUCTIONAL
METHODS IN SECOND "RADIO STATION" EXPERIMENT, GRADES 7, 8, AND
9 IN SYSTEM II

METHOD	N	MEAN GAIN	VALUE OF t	SIGNIFICANCE LEVEL
Filmstrip With Synchronized Tape	11	4.09	4.83	<.05
Super 8 Sound Movie	11	8.27	8.15	<.05
Representative In Classroom	12	6.25	6.60	<.05
Control	22	.41	.84	ns

TABLE 6
RESULTS OF COMPARISONS OF GROUP GAINS OBSERVED WITH
METHODS REPORTED IN TABLE 5

	FILM STRIP	SUPER 8 MOVIE	CLASSROOM REPRESENTATIVE
Filmstrip		t=3.27*	t=1.70
Super 8 Movie			t=1.50
Classroom Rep.			

*Significant at .05 Level in Favor of Super 8 Movie.

In the second experiment the super 8 sound movie again was a better disseminator of career information than the filmstrip. Since the classroom representative was not a member of the radio station, this may account in part for the scores of students hearing this representative

being not as high as those who heard the representative from the radio station in the first experiment.

A third experiment was conducted at a concrete and metal pipe company. The results are reported in Tables 7 and 8. Significant gains were made by students in each of the experimental groups. All of the gains for the different groups were so similar that no significant differences could be identified between presentations utilizing the super 8 sound movie, the tape filmstrip, or the classroom representative.

TABLE 7
SUMMARY OF t TEST ANALYSES OF PRE- TO POST-TEST
GROUP MEAN GAINS OBSERVED WITH THREE INSTRUCTIONAL
METHODS IN "CONCRETE PIPE COMPANY" EXPERIMENT, GRADES
7, 8, AND 9 IN SYSTEM II

METHOD	N	MEAN GAIN	VALUE OF t	SIGNIFICANCE LEVEL
Filmstrip With Synchronized Tape	8	6.37	7.75	<.05
Super 8 Sound Movie	9	7.11	14.67	<.05
Representative In Classroom	10	6.70	7.28	<.05
Control	23	.13	.08	ns

TABLE 8
RESULTS OF COMPARISONS OF GROUP GAINS OBSERVED
WITH METHODS REPORTED IN TABLE 7

	FILM STRIP	SUPER 8 MOVIE	CLASSROOM REPRESENTATIVE
Filmstrip		t=.78	t=.27
Super 8 Movie			t=.39
Classroom Rep.			

The fourth experiment was conducted at a local manufacturing company. In Tables 9 and 10 it can be seen that significant gains between the pre- and post-test were obtained for all experimental groups. A comparison of the gains for the different groups revealed that the most significant gains were obtained by the students hearing the classroom representative. There were no significant differences between gains of students viewing the movie and those hearing the representative or viewing the filmstrip or seeing the super 8 sound movie.

TABLE 9
 SUMMARY OF t TEST ANALYSES OF PRE- TO POST-TEST
 GROUP MEAN GAINS OBSERVED WITH THREE INSTRUCTIONAL
 METHODS IN "MANUFACTURING COMPANY" EXPERIMENT, GRADES
 7, 8, AND 9 IN SYSTEM II

METHOD	N	MEAN GAIN	VALUE OF t	SIGNIFICANCE LEVEL
Filmstrip With Synchronized Tape	8	5.25	5.01	<.05
Super 8 Sound Movie	9	6.00	3.75	<.05
Representative In Classroom	10	9.00	9.54	<.05
Control	25	.68	2.06	ns

TABLE 10
 RESULTS OF COMPARISONS OF GROUP GAINS OBSERVED
 WITH METHODS REPORTED IN TABLE 9

METHOD	FILM STRIP	SUPER 8 MOVIE	CLASSROOM REPRESENTATIVE
Filmstrip		t=.40	t=2.72*
Super 8 Movie			t=1.59
Classroom Rep.			

*Significant at .05 Level in Favor of Classroom Representative

The results of a fifth experiment, conducted at the local newspaper, are reported in Tables 11 and 12. Each of the experimental groups made significant gain from the pre- to the post-test. However, the differences in the gains for the different experimental groups were not significant; therefore, no conclusions could be drawn from this data.

TABLE 11
SUMMARY OF t TEST ANALYSES OF PRE- TO POST-TEST
GROUP MEAN GAINS OBSERVED WITH THREE INSTRUCTIONAL
METHODS IN "NEWSPAPER" EXPERIMENT, GRADES
7, 8, AND 9 IN SYSTEM II

METHOD	N	MEAN GAIN	VALUE OF t	SIGNIFICANCE LEVEL
Filmstrip With Synchronized Tape	9	4.33	4.33	<.05
Super 8 Sound Movie	10	5.20	6.66	<.05
Representative In Classroom	8	6.25	5.69	<.05
Control	29	.17	.87	ns

TABLE 12
RESULTS OF COMPARISONS OF GROUP GAINS OBSERVED
WITH METHODS REPORTED IN TABLE 11

	FILM STRIP	SUPER 8 MOVIE	CLASSROOM REPRESENTATIVE
Filmstrip		t=.69	t=1.29
Super 8 Movie			t= .77
Classroom Rep.			

In summarizing their results and conclusions, project personnel in System II noted that there was a tendency for the more concrete activities to produce higher gains than the more abstract activities. Basically, groups being exposed to "hands-on" activities or visits demonstrated the greatest cognitive gains. While on-site visits are probably one of the most effective disseminators of career education information, certain factors may limit their usefulness. In some major factories, visitors are limited to persons over sixteen years of age. During the project year there were additional limitations imposed by the gasoline shortage on the transportation of students.

Groups participating in the super 8 sound film instructional procedure were able to achieve gains comparable to the gains of students who were allowed to visit the career site. Students who participated in the synchronized sound filmstrip activities had the lowest cognitive gains in most instances. Students hearing resource speakers achieved somewhat higher gains than students participating in the synchronized sound filmstrip activities. After studying the results, project

personnel in System II suggested that the most effective method for disseminating career education information may be a combination of procedures. For example, in some experiments conducted near the end of the project year in which a resource person introduced a super 8 sound movie developed in his particular business and then followed it with an explanation and questions and answers, cognitive gains of students tended to be much greater than with either procedure alone. System II indicated that their experiments with combinations of instructional methods were incomplete at the end of the project year, but the experiments would continue during the fall of the 1974-75 school year.

Certain limitations to the findings reported by System II should be noted. The time frame of the project permitted only five experiments to be conducted, with only one trial including all four of the instructional methods being tested. Each experimental trial covered a very short period of time, always less than one day. While this achieved the advantage of reducing experimental contamination from external sources, there was no opportunity to generate data documenting long-term or cumulative gains attributable to instructional methods. The experimental groups were of small size. The n ranged from six to twelve, with an average size of about nine. Evaluation of the instructional methods was on the basis of non-standardized, locally developed tests composed entirely of multiple-choice items designed to sample only the cognitive domain.

All of the limitations mentioned above may be related to the parameters within which the research activities had to be conducted. Given these parameters, System II appeared to proceed with a high level of approved research methodology. Students were randomly selected for participation in each of the experiments and were randomly assigned to the instructional methods. Results were documented through the use of pre-tests and post-tests with the experimental groups as well as with the control groups. Standard statistical analyses were applied to the data. Statistical procedures and results were thoroughly reported to the state project staff. Finally, the findings of the experimental trials were reported, not as conclusions, but rather as evidence suggesting direction for further research.

3. GAINS IN CAREER MATURITY INVENTORY SCORES

A summary of the gains in the mean scores on the Career Maturity Inventory are presented in Table 13 for all systems in the exploration component. Data from which these calculations were made were provided by CTB/McGraw-Hill scoring service. As part of the scoring service, CTB/McGraw-Hill provided detailed summaries by grade level and by system on the pre-test and post-test scorings. From these group summaries it was relatively easy to calculate system-wide mean gains for the experimental and control groups.

In Table 13, gains are reported separately for the Competency Test and for the Attitude Scale of the C.M.I. The gains cited for the Competency Test represent an average of the gains on the five subscales of the instrument. In all categories, gains are reported for two groupings of students. Since grades 7 and 8 were represented in all

systems, their gains were grouped together to provide some uniform basis for comparison between systems. For the second grouping, all grades in a system were combined to represent total gain achieved by project efforts in a system.¹ Finally, the net gain of the experimental group over the control group in each category for each system is presented. Data in Table 13 are presented for illustrative purposes only.

From data supplied by the CTB/McGraw-Hill scoring service and summarized in Table 13, it can be seen that the experimental groups in all systems registered gains on both parts of the C.M.I. Systems III and IV achieved the highest mean gains for the experimental groups. The control groups registered small positive gains for most groupings in most systems, although some negative gains were observed in Systems I, III, and V. The highest gains among the control groups occurred in System II, which might be interpreted as evidence of that system's success in fusing career education information into the regular curriculum. The data for net gains of experimental groups over control groups indicated that System III achieved the highest net gains for all groups, followed by System IV. However, the gains observed in System IV were especially noteworthy, since that system had the largest experimental group of any system in the exploration component. The negative net gains registered by System II cannot be explained by data from the present study.

C. CONCLUSIONS AND CONTINUING RESULTS

Data on net gains registered on the C.M.I. should not be interpreted as reflecting the efficacy of a particular program developed as part of the project activities in the exploration component. Actual differences in scores were minor, and it has been pointed out that results may have been affected by the fact that true random selection of students was not achieved in some systems nor were effective measures available in some systems to prevent control group contamination. Furthermore, it was recognized by the state project staff and by the third party evaluator that changes in scores on the Career Maturity Inventory provide a measure of product evaluation only, whereas process evaluation may provide the more appropriate assessment of the success of a project of this nature and duration.

The findings of the research project reported herein did not identify a particular method or "mix" of methods that appeared to have a distinct advantage over other methods. All systems reported that a combination of methods, suited to the different learning styles of students and reflecting the unique characteristics of the school system and its surrounding area, seemed to be effective in providing career education exploratory experiences. The limited research reported by System II suggested that high short-term cognitive gains can be achieved through an instructional method which combines a resource person in the classroom with a multi-media presentation, such as a super 8 sound movie, depicting the resource person's working environment.

¹See Table 2 for a summary of the grades and number of students from each system.

TABLE 13
SUMMARY OF GAINS IN MEAN SCORES ON THE CAREER MATURITY INVENTORY FOR EXPERIMENTAL AND CONTROL GROUPS, BY SYSTEM IN EXPLORATION COMPONENT

SYSTEM	EXPERIMENTAL GROUP GAINS				CONTROL GROUP GAINS				NUMBER OF EXPERIMENTAL GROUPS OVER CONTROL GROUPS	
	COMPETENCY TEST*		ATTITUDE SCALE		COMPETENCY TEST*		ATTITUDE SCALE		COMPETENCY TEST	
	GRADES	ALL GRADES	GRADES	ALL GRADES	GRADES	ALL GRADES	GRADES	ALL GRADES	GRADES	ALL GRADES
	7 & 8	COMBINED	7 & 8	COMBINED	7 & 8	COMBINED	7 & 8	COMBINED	7 & 8	COMBINED
I	0.8	0.2	1.0	-0.5	-0.7	-0.6	2.0	1.1	1.5	0.0
II	0.3	0.3	1.0	1.1	0.9	0.7	1.8	1.6	-0.6	-0.0
III	1.1	1.0	2.9	3.8	-1.0	-0.6	1.5	1.2	2.1	1.0
IV	1.1	1.4	1.7	3.4	0.1	0.1	1.3	1.6	1.0	1.0
V	0.4	0.4	1.4	2.2	0.4	0.2	-0.3	0.8	0.0	0.0

*Numbers Cited Under Competency Test Represent An Average Of The Gains On The Five Subtests

TABLE 13

SUMMARY OF GAINS IN MEAN SCORES ON THE CAREER MATURITY INVENTORY FOR EXPERIMENTAL AND CONTROL GROUPS, BY SYSTEM IN EXPLORATION COMPONENT

EXPERIMENTAL GROUP GAINS			CONTROL GROUP GAINS				NET GAINS OF EXPERIMENTAL GROUPS OVER CONTROL GROUPS			
COMPETENCY TEST*	ATTITUDE SCALE		COMPETENCY TEST*		ATTITUDE SCALE		COMPETENCY TEST		ATTITUDE SCALE	
	GRADES 7 & 8	ALL GRADES COMBINED	GRADES 7 & 8	ALL GRADES COMBINED	GRADES 7 & 8	ALL GRADES COMBINED	GRADES 7 & 8	ALL GRADES COMBINED	GRADES 7 & 8	ALL GRADES COMBINED
0.2	1.0	0.5	-0.7	-0.6	2.0	1.1	1.5	0.8	-1.0	-0.6
0.3	1.0	1.1	0.9	0.7	1.8	1.6	-0.6	-0.4	-0.8	-0.5
1.0	2.9	3.8	-1.0	-0.6	1.5	1.2	2.1	1.6	1.4	2.6
1.4	1.7	3.4	0.1	0.1	1.3	1.6	1.0	1.3	0.4	1.8
0.4	1.4	2.2	0.4	0.2	-0.3	0.8	0.0	0.2	1.7	1.4

*Under Competency Test Represent An Average Of The Gains On The Five Subscales Of The Test

A general conclusion from the exploratory component may be that a pattern of effective career education exploratory methods can be implemented in a school system with relatively slight modifications in the total school program. No additional personnel were employed by the systems in the exploration component for developing project activities. It appeared that an important element in the total procedure was precisely that of getting teachers oriented to the purposes of the project and involved in providing career education exploratory experiences.

In terms of the impact that participation in the exploration component had on the respective systems, several continuing results may be cited. (a) One system arranged for a number of its teachers to take a course for college credit in career education curriculum development. (b) One system developed techniques for video-taping business and industrial work environments illustrating a number of occupations. These tapes became part of a growing library of audio-visual materials which the system is continuing to use with its closed circuit television facility which has the capability of reaching all students in the system. (c) One system is continuing its experiments with varieties of instructional methods and is attempting to correlate the different methods with the learning styles of students. (d) One system is planning to add the Career Maturity Inventory to its battery of tests available to counselors and students. (e) A state-wide study was begun near the end of the project year to determine the effectiveness of the Differential Aptitude Test for assisting students in identifying their interests prior to selecting vocational courses in high school.

It appears that participation in the exploration component produced a re-direction of educational emphasis in the participating systems which is bringing about major curriculum changes at the junior high level. It appears that when a total school system is committed to the concept of career education, a variety of effective programs for career exploratory experiences can be developed and instituted at the junior high school level with only a very modest increase in the school system's budget.

PLACEMENT COMPONENT

I. INTRODUCTION

A. ORIENTATION TO THE PLACEMENT COMPONENT.

The basic goal of the placement component of the study was to identify processes that are effective for initiating the establishment of a comprehensive school-based placement service in a secondary school. The placement service was to be comprehensive in that it (a) would serve 100 percent of the students who exited the school system either as drop-outs or as graduates, and (b) would assist the exiting student in finding and beginning a full-time job, or in enrolling in a program for further education and training, or in moving into unpaid employment that was consistent with the career intentions of the student. The placement service was to be school-based in that it would be managed and operated by personnel responsible to the superintendent of the local education agency.

Alabama public school systems interested in participating in the placement component of the project were asked to submit proposals to the Director of the Division of Vocational Education and Community Colleges, Alabama State Department of Education. A committee within the Division reviewed the proposals and selected five school systems to participate in the placement component. One objective in selecting systems was to assure that a variety of settings be represented, including large metropolitan areas, medium-sized cities, and small rural systems.

While the duration of the total project, that is, exploration component and placement component, was from June 1973 through November 1974, the project budget provided for reimbursing the salary and travel expenses of one placement coordinator in each of the placement sites from September 1973 through August 1974. Thus, this report is a description of the project related activities which occurred during one school year and the following summer. The report, however, should not be considered a "final" report of results of the project, since placement efforts have continued into the second year in all systems. It appears that the systems have recognized that an effective comprehensive placement service cannot be established in one year and are taking steps to make placement a part of the regular services the school provides to its students.

The Alabama school systems which participated in the placement component of the project were: Mobile County, Geneva County, Coffee County, Covington County, and Phenix City. Phenix City is located in Russell County. For the presentation of data and discussion of project activities in the placement component, the five participating school systems and the counties in which they are located were assigned code numbers and are referred to as school system or county A, B, C, D, or E. This procedure was observed in order to preserve a degree of anonymity among project participants.

B. SOCIO-ECONOMIC AND EDUCATIONAL CHARACTERISTICS OF COUNTIES

Selected socio-economic and educational characteristics of counties in which school systems participating in the placement component were located are presented in Table 14. The information in Table 14 has been arranged so that the counties designated as A, B, and C are small rural counties with no city larger than 15,000 population. County D is the second most populous county in the state and contains a major city with a total metropolitan area population of approximately 260,300. County E contains one city of 25,000 population.

Public school district boundaries in Alabama generally coincide with county boundary lines. However, State law permits municipalities to establish separate public city school districts to serve students residing within the corporate limits of the municipality. Consequently, a variety of jurisdictional patterns prevail throughout the state. In some cases, a "county system" serves all urban and rural students in the county. In other cases, one or more "city systems" have been established within a given county and the "county system" serves the remainder of the county.

Table 15 depicts the distribution of school systems in each of the counties in which placement component project schools were located. It may be seen that the project systems were four county systems and one city system, but only one of the county systems served 100 percent of the public school students residing in the county. In places where a county system and city systems existed together, special problems were encountered by the placement coordinator in finding employment for exiting students. These problems and suggested solutions are discussed further in the section on conclusions and recommendations.

C. OBJECTIVES OF PLACEMENT COMPONENT

The general objectives of the placement component may be restated as follows for each school system:

1. To identify state, community, and area resources capable of providing employment or further education and training for exiting students.
2. To develop a system for identifying potential dropouts.
3. To identify the placement needs and interests of exiting students.
4. To develop procedures for intermeshing students' placement interests with state, community, or area resources.
5. To develop procedures and appropriate instrumentation for accounting for and following up all students who exit the school system.

D. POPULATION AND SAMPLE SELECTION

The students in grades 7-12 were to receive the emphasis of the various objectives of the placement component. Enrollment figures for grades 7-12, by race, for 1973-74 in each of the participating systems

TABLE 14
 SELECTED SOCIO-ECONOMIC AND EDUCATIONAL CHARACTERISTICS
 OF COUNTIES IN WHICH SCHOOLS IN THE PLACEMENT
 COMPONENT WERE LOCATED (1970 CENSUS DATA)

ITEM	STATE OF ALABAMA	COUNTY A	COUNTY B	COUNTY C	COUNTY D	COUNTY E
Total Population	3,444,165	34,872	34,079	21,924	317,308	45,394
Rank of County in Pop. within State (67 Counties)		26	27	44	2	20
Total Pop. Change 1960-1970	5.4	14.0	- 4.4	- 1.7	1.0	- 2.1
Rural Farm	6.4	7.6	14.6	16.8	2.3	2.6
Rural Non-Farm	35.1	34.4	28.1	49.6	15.7	41.7
Urban	58.5	58.0	57.3	33.6	32.0	55.7
Racial Composition:						
% White	73.6	82.7	85.1	36.8	67.5	54.2
% Black	26.2	17.1	14.8	13.1	32.3	45.7
% All Other	0.2	0.2	0.1	0.1	0.2	0.1
Mean Family Income:						
White		8,309	7,140	6,961	10,499	8,400
Black		4,909	4,547	4,409	5,278	4,471
% of Families With Income Below Poverty Level:						
White		16.0	20.6	21.7	9.7	13.3
Black		47.3	52.9	58.0	42.9	52.9
% H.S. Graduates (Over Age 25):						
White Male		44.7	33.3	26.3	49.2	39.7
Black Male		21.3	19.1	19.6	21.4	8.3
White Female		42.1	34.0	28.1	50.3	37.2
Black Female		19.2	15.6	24.8	27.6	10.6
% Unemployment (1973)**	4.7	3.6	4.6	3.1	4.5*	2.0
Total Emp. (1961)**	1,053,700	7,740	13,020	6,490	119,700*	8,150
Total Emp. (1973)**	1,331,300	11,520	14,230	6,640	128,500*	12,940
% Change in Total Emp. 1961-1973	26.4	48.8	9.3	2.3	7.4*	58.8

*Data For The SMSA Which Includes County D And The Adjacent County.

**Source: Department of Industrial Relations, State of Alabama. Employment Data Compiled On A Place-Of-Work Basis.

TABLE 15
ALL PUBLIC SCHOOL SYSTEMS OPERATING
WITHIN COUNTIES IN WHICH PLACEMENT COMPONENT
PROJECT SCHOOLS WERE LOCATED

COUNTY DESIGNATION	TOTAL ENROLLMENT GRADES 1-12 SEPTEMBER 1973	PERCENT OF TOTAL COUNTY ENROLLMENT REPRESENTED IN PROJECT SCHOOL SYSTEM	NUMBER OF HIGH SCHOOLS IN SYSTEM
County A			
*County System	2,330	26.6	3
City System (a)	4,741		1
City System (b)	1,686		1
County B			
*County System	3,048	40.1	4
City System (a)	2,439		1
City System (b)	1,741		1
City System (c) (Grades 1-8)	368		
County C			
*County System	3,498	73.2	4
City System (a)	1,281		1
County D			
*County System	65,627	100.0	15
County E			
County System	3,987		3
*City System (a)	5,600	58.4	2

Source: Alabama State Department of Education

*System Participating in Placement Component of Project

are presented in Table 16. The data indicate that the three rural systems, that is Systems A, B, and C, had similar racial compositions, all being approximately 85 percent white and 15 percent non-white. The two larger systems were also similar in racial composition, with a ratio of about 55 percent white to 45 percent non-white.

The data in Table 16 indicate there were a total of about 43,000 students enrolled in grades 7-12 in the five systems. However, this total figure should not be viewed as the true population of the study. Since the objectives of the placement component focused on the methods a placement coordinator might develop to serve the needs of specific students, as contrasted to objectives which focused on the characteristics or behavior of the students themselves, a modified definition of the student population was developed. The student population in the

TABLE 16
ENROLLMENT IN GRADES 7-12, 1973-74,
BY RACE AND BY SCHOOL SYSTEM
IN PLACEMENT COMPONENT

SYSTEM	ENROLLMENT IN GRADES 7-12					
	NON-WHITE		WHITE		TOTAL	
	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL	NUMBER	PERCENT
A	150	14.0	925	86.0	1,075	100.0
B	233	14.9	1,329	85.1	1,562	100.0
C	307	18.0	1,395	82.0	1,702	100.0
D	15,828	44.8	19,466	55.2	35,294	100.0
E	1,468	45.6	1,748	54.4	3,216	100.0
TOTALS	17,986	42.0	24,863	58.0	42,849	100.0

Source: Alabama State Department of Education

placement component was considered as those to whom the LEA project personnel directed their efforts. Defined in this manner, the total population consisted of three sub-populations. One concern of the project personnel was the placement needs and interests of the 12th grade students. A second group was students in grades 7-12 who had been identified as potential dropouts, or who had in fact left school. A third group was all other students who might need assistance in finding employment, including employment through funded programs such as N.Y.C.

Data presented in Table 16 illustrate a wide range in enrollment in grades 7-12 in the participating school systems which, in turn, implies a wide range in the potential student population, as defined in the above paragraph. One of the first tasks of the placement coordinators was to identify a sample of manageable size. The project staff from the Alabama Research Coordinating Unit apprised the placement coordinators that other research (see PERT Report No. 32) has suggested that, as a rule-of-thumb, a placement officer should not expect to work with more than 200 students in the first year of a placement program. The state project staff also recommended that where the student population was of sufficient size, a control group of students should also be identified. A control group would add another dimension in determining the effectiveness of the methods developed by the placement coordinator. The control group was to receive only the information and assistance normally provided by counselors or other vocational teachers but none

of the specialized services developed through the project. However, as the project progressed in each site it became apparent that the very nature of activities required for establishing a comprehensive placement service was causing a great deal of cross contamination among the sample groups. Efforts such as providing wide spread publicity in the various media, stimulating interest and support among teachers, as well as the tendency of students to share employment information by work-of-mouth, all contributed to a blurring of the distinction between experimental and control groups. No attempts were made to artificially control this interaction, if indeed it would even have been possible. Consequently, no true experimental design was maintained in any placement site, although the designations of experimental and control were retained and are reported as such in this document.

Two of the smaller systems elected to include all of the potential student population as their experimental sample. In three systems, a process of random selection was used to identify an experimental group and a control group. Differences in size and organization of the systems caused the procedure of randomization to vary somewhat from site to site. The process used is discussed in the sections dealing with the program in specific sites. Data are presented in Table 17 to indicate to the reader the distribution and approximate size of the groups in the placement component. The data are the numbers in the experimental and control group samples that completed the 12th grade in May 1974. The numbers in the dropout column represent the total number of students from the project schools in each system that were reported as dropouts on the Alabama School Leavers Report during 1973-74. The data in Table do not represent total enrollment nor the total number of students who received services from the placement coordinator.

E. INSTRUMENTATION AND DATA COLLECTION

No standardized testing instruments were administered to students in the placement component. Personnel in each site were expected to develop suitable forms for recording community and student information for their system. The state project staff provided each coordinator with examples of forms and references to materials which had been developed in placement programs in other parts of the country. The state project staff assisted in the development of a uniform follow-up questionnaire which was used in all sites.¹ The follow-up data were collected between July 15, 1974 and August 15, 1974. A 50 percent random sample was drawn from each of the experimental and control groups for the purpose of collecting follow-up data. A random sample of 50 individuals was drawn from the dropout group in three systems. In two systems which reported fewer than 50 dropouts, all dropouts were included among those to be followed up.

It should be noted that the entire follow-up data collection process was seriously truncated by the necessity of complying with the time schedule set forth and approved in the original project proposal.

¹See Appendix I for a sample of the follow-up questionnaire.

TABLE 17
 DISTRIBUTION OF EXPERIMENTAL AND CONTROL GROUPS
 IN PLACEMENT COMPONENT, INCLUDING NUMBER IN EACH GROUP
 WHO COMPLETED GRADE 12, AND TOTAL NUMBER OF DROPOUT STUDENTS
 FROM PROJECT SCHOOLS IN 1973-74, BY SYSTEM

SYSTEM DESIGNATION	EXPERIMENTAL SAMPLE	CONTROL SAMPLE	TOTAL DROPOUTS
System A	105	--	21
System B	183	--	79
System C	86	115	49
System D	143	164	400
System E	106	154	134

However, LEA project personnel were aware of this limitation and indicated that they plan to make modifications in the questionnaire and in the procedure as they continue following up other groups of exiting students.

F. PROJECT PERSONNEL

The placement coordinator was the person in each site who had the major responsibility for the day-to-day development and coordination of project activities. In all sites the placement coordinator was an experienced teacher, counselor, or administrator. The amount of professional experience of the coordinators ranged from one year for the coordinator in System C to 24 years for the coordinator in System A. In all sites except one, the coordinator's office was in the central office of the local superintendent of education. In System E the coordinator maintained his office in the senior high school building.

The contracts between the LEA's and the Alabama State Department of Education for conducting the placement component required the LEA to provide an equivalent of fifteen work-days of administrator time and twenty-six work-days of counselor time throughout the total project. Project personnel reported each month to the state project staff an estimate of the amount of time that had been spent in project related activities. It was found that as the project progressed, more and more local personnel--teachers, counselors, and administrators--became involved directly and indirectly in project activities, the end result being that local contribution exceeded substantially the amounts of time specified in the contracts.

II. PROGRAMS AND RESULTS

Section II provides a description of the programs that were developed in the placement component. In order to provide a descriptive context for project activities in each site, general geographic and economic characteristics of the area are presented, together with selected information about the school system. Following the introductory description of the context, the procedures that each site followed and the results that were achieved are discussed for each of the general objectives.

Since the three rural systems appeared to have many characteristics in common, they have been grouped together in the following discussion. The project activities for the metropolitan system are discussed separately, followed by a discussion of project activities in the medium-sized city system.

A. RURAL SYSTEMS

1. DESCRIPTION OF SETTING

a. Geography and Employment

Counties A, B, and C are contiguous counties located in Southeast Alabama with land areas of 677, 984, and 578 square miles respectively. In 1970, the population of the three counties was about 48 percent rural, with County C being somewhat higher in its rural population. Within the three-county area there was one urban center of 15,000 population, another of 10,000, and several small centers of approximately 5,000 or less population. All three counties had been losing population for several decades. County A, however, reversed this trend between 1960 and 1970 and registered a 14 percent gain in population.

Light manufacturing industries employed the largest number of non-agricultural wage and salary workers in all three counties. The major manufacturing industry was textiles, including cloth factories and sewing factories. The pulpwood industry was a major employer of small farmers and rural residents who wished to supplement their income. The unemployment rate in all three counties in 1973 was below the state and national averages. This was due in part to the relatively high proportion of unskilled and semi-skilled jobs available at that time.

b. School Systems

Enrollment. Table 18 contains selected data on school systems A, B, and C. Included are the enrollments by grade, 9-12, in each of the secondary schools in the systems, with an indication of the distance and direction from the central office each school was located, and with an indication of the grades served at each attendance center.

From the information in Table 18, the following observations may be made. (a) The project schools in the rural systems were small high

TABLE 18
ENROLLMENT IN 1973-74 IN GRADES 9-12, AND
SELECTED OTHER DATA, FOR HIGH SCHOOLS IN
THREE RURAL SYSTEMS PARTICIPATING IN PLACEMENT COMPONENT

SYSTEM AND HIGH SCHOOL	LOCATION FROM CENTRAL OFFICE*	ENROLLMENT BY GRADE					TOTAL GRADES SERVED AT ATTENDANCE CENTER
		9	10	11	12	TOTAL	
System A							
School #1	7 E	75	63	56	31	225	1-12
School #2	13 N	39	53	42	37	171	1-12
School #3	16 SW	53	40	39	41	173	1-12
System B							
School #1	16 S	36	30	29	29	124	1-12
School #2	12 NW	62	41	47	39	189	1-12
School #3	8 NE	71	62	63	52	248	1-12
School #4	28 SE	85	95	60	65	305	9-12
System C							
School #1	12 N	39	36	39	27	141	1-12
School #2	12 NE	93	78	61	65	297	1-12
School #3	12 NW	83	72	52	61	268	1-12
School #4	18 NE	91	79	77	56	303	1-12

Source: Office of Superintendent of Education of Respective Systems
*Notation is in miles and direction, e.g. 8 NE indicates eight miles northeast of the central office

schools; the highest total enrollment in grades 9-12 was approximately 300 students. (b) All schools registered a marked decline in enrollments from grade nine to grade twelve, suggesting, although not confirming conclusively, a serious dropout rate. (c) The schools were widely separated, up to 28 miles from the central office and 40 miles from each other. (d) Most attendance centers served grades 1-12, as is found frequently in many county school systems in Alabama.

Information presented earlier in Table 15 indicated that in each of the rural counties one or more city school systems existed to serve students in the larger municipalities. Thus, the project schools in Systems A, B, and C may be characterized as small, widely separated schools serving an almost exclusively rural and predominately white population.

Prior Career Education and Vocational Education. Prior to the 1973-74 school year, none of the rural systems had made a coordinated effort to provide career education programs. None had participated in funded career education projects. There had been no system-wide placement programs nor any concentrated programs directed toward potential

dropout students. There had been a few examples of work-study programs and co-op programs that involved businesses in the community. Vocational education courses were limited to vocational agriculture and home economics in most systems with sparse offerings in business and office education and vocational industrial education. Within the three-county area, two junior colleges and one technical institute provided a variety of post-secondary education and training opportunities. Other technical institutes and junior colleges were located in neighboring areas and were available to students in the project counties.

Counseling Services. Counseling services in the rural systems in the placement component were limited. One high school did not have any services provided by a qualified counselor. More typically, a qualified counselor would serve as teacher-counselor or would serve several schools, each on a part-time basis. Full-time counselors were reported in a small percent of the schools involved in the project in the rural systems.

Funding in 1973-74. The per pupil expenditure for the three rural systems in 1973-74 ranged from \$575 to \$649. These figures were calculated from September 1973 enrollment figures reported by the Alabama State Department of Education and from reports of total funds received as submitted by the local systems. The proportion of these funds coming from Federal and State sources ranged from 78 percent to 95 percent.

c. Selection of Experimental and Control Groups

In Systems A and B, the placement coordinator and local project director chose to include all of the students as the experimental group. From data presented in Table 18 it can be seen that System A reported 109 seniors and System B reported 185 seniors. In System C, which had four small high schools, it was decided to randomly select two of the schools and designate them as an experimental group, with the other two schools serving as a control group. In September 1974, there were 88 seniors in the experimental schools and 121 in the control schools in System C.

2. PROCEDURES AND RESULTS

In the following section the general objectives of the placement component are restated as they were listed on page 28 of this report, followed by a discussion of procedures and results relative to each objective.

General Objective No. 1. To identify state, community, and area resources capable of providing employment or further education and training for exiting students.

The identification of state, community, and area resources in the rural systems in the placement component had to begin at the most basic level. Since there had been little career education activities which brought community people into the classroom, few cooperative

arrangements between the vocational teachers and businessmen, no active placement programs, and limited counseling services, there was no specific, organized information about businesses and other community resources available from any centralized source in the school systems.

The techniques which the placement coordinators in the rural systems used to identify state, community, and area resources included the following. These techniques were used not only to identify employment prospects but also to identify persons who were willing to serve as resource people in classrooms.

- a) Personal visits to employers. Most of the major employers in the rural areas were known to the project personnel, although the specific employment needs or the complete range of occupations within the companies were not generally known. Thus, on-site visits were conducted to obtain needed information. Appropriate forms for recording the information were developed by each site.
- b) Use of the telephone directory. The yellow pages of the telephone directory were used to identify smaller employers. Names of employers were compiled and categorized by type of business. Selected companies were visited.
- c) Notes to parents of students. In one system a letter was sent home with each student asking for names of parents and friends who could provide job related information to students. This information was compiled into a list of resource persons and made available to all schools.
- d) Identification of sources of financial assistance for post-secondary students. Many students completing high school in the rural counties lacked financial means to continue their education. By familiarizing themselves with public and private sources of scholarships, loans, and grants, the placement coordinators were able to assist the students in making application.
- e) Personal visits to post-secondary institutions. The placement coordinators visited all technical institutes, junior colleges, and 4-year institutions in their areas. The personal contact between a representative of the school system and the post-secondary personnel proved to be a particularly fruitful technique when the placement coordinator was attempting to meet the special needs of certain students, for example, those who had been identified as potential dropouts, those who needed financial assistance, or those who were in other unique circumstances.
- f) Correspondence with large national companies. Since the industrial base of the rural counties was limited, many occupations which students might aspire to could be found only through emigration. At least one placement coordinator

identified and corresponded directly with a number of large national companies regarding opportunities in their job training programs. This technique produced few actual placements during the year covered by this report, but it does appear to be a means of broadening the range of occupational options for certain students from areas with little industry.

- g) Familiarization with federal and state work programs. A number of federal and state work programs were available in the rural counties. It was found to be fruitful for the placement coordinator to study these programs and cooperate with the local representative in identifying students who met the criteria for participation in the programs.
- h) Cooperation with the State Employment Service. All placement coordinators contacted the local representative of the State Employment Service. Cooperation during the reporting period was primarily on an informal basis. That is, the State Employment Service representatives cooperated in such functions as (a) providing resource material to aid teachers in teaching pre-employment preparation, (b) assisting in obtaining materials for administering the General Aptitude Test Battery to students, and (c) discussing procedures for dropout referral. The coordinators, however, reported that in the rural counties the State Employment Service was unable to provide any substantive assistance in the actual placement of graduates or dropouts in full-time jobs. It appears that more time will be required to identify and develop effective working relationships between state employment agencies and school-based placement programs.
- i) Familiarization with Civil Service Offices, Civilian Personnel Offices of military bases, and trade union apprenticeship programs. In some of the rural counties military bases were among the major employers in the area. The placement coordinators either visited or corresponded with the personnel offices of the bases, as well as with the offices of the Civil Service and any trade unions in the area.
- j) Publicizing the new placement service. All placement coordinators publicized the placement service by newspaper articles and pictures. In areas where a Chamber of Commerce or other organization of businessmen existed, the coordinators reported that these organizations were most interested in the placement service and were very cooperative in providing helpful leads to other community resources. For example, in one instance a member of the Chamber of Commerce arranged for all banks in the county to include in their monthly statements to businessmen a letter from the placement coordinator announcing the establishment of the placement service.

General Objective No. 2. To develop a system for identifying potential dropouts.

In the amended application for the project the objective related to dropout identification was stated as, "development of a system for identifying and cataloguing potential school leavers." When the placement coordinators in the rural systems confronted this objective they usually expressed a very pragmatic reaction, saying essentially, "We know who the potential dropouts are, let us see if we can meet their needs." The reasoning of the placement coordinators included a recognition that the time frame for the project did not permit an exhaustive study for developing and validating a method for identifying potential dropouts. Furthermore, the coordinators said, dropout-prone students in senior high school are easily identifiable by their teachers. The real need, they concluded, was for effective preventive and remedial approaches to the potential and actual dropout. The state project staff did not discourage this interpretation of the objective, since it encompassed a degree of identification as well as action.

A summary of the various methods developed by the placement coordinators in the rural systems for identifying and meeting the needs of dropouts is presented below.

- a) Each of the coordinators developed a form which high school teachers used to record the names of students whom they considered to be potential dropouts. To aid in the identification, lists of variables to be considered were developed by LEA project personnel. The lists included low or failing grades, chronic absenteeism, low reading ability, non-participation in school activities, active antagonism to school authorities, record of delinquency, brothers or sisters who have dropped out, and fewer than two natural parents at home.
- b) The lists of identified students were reviewed by principals, counselors, teachers, and the placement coordinator. Counseling sessions were scheduled to assist students in school related problems. If it was determined that part-time employment might be helpful to the student, the placement coordinator attempted to place the student.
- c) Home visits were made by some coordinators to consult with parents.
- d) In one system the conclusion was drawn that chronic economic problems were a major factor in causing students to dropout. Consequently, all students in grades 9-12 were identified who had serious economic problems and were considered to be in danger of dropping out, regardless of scholastic grades. Some of the students were placed in part-time jobs if there was agreement between the major teacher, the school principal, and the placement coordinator that part-time employment would be in the best interest of the student. A total of 22

students were placed in part-time jobs, working not more than 20 hours per week, and receiving the minimum wage rate.

For other students it seemed that lack of interest in school, in addition to economic problems, was contributing to their being dropout prone. Since one school system had limited facilities for vocational education, arrangements were made whereby dropout prone students could enroll for credit in a vocational course of their choice in an adjacent city school system or in a neighboring technical institute. A total of 38 students were placed in these vocational facilities.

A number of techniques were developed related to placing dropout prone students in part-time jobs or in vocational programs, including:

- friends of the student were asked to help in the placement wherever possible, and acknowledgement was given to the friend.
- a picture of the student on the job or at the vocational facility was published in the local newspaper.
- the student's performance was monitored by the placement coordinator.
- the student was graded by the employer or the instructor at regular intervals. Academic credit toward high school graduation was granted for satisfactory job performance or satisfactory progress in the vocational course.

The placement coordinator in the system which developed the procedure described above reported that 90 percent of the students who participated in the part-time work or vocational training program registered an improvement in their overall grade point average. He concluded that the improvement was evidence of increased interest in school and probably would serve as an inducement for the students to remain in school.

- e) One system developed a procedure which is planned to provide an annual identification of potential dropout students. A list of characteristics and behaviors thought to be indicative of a potential dropout was developed. At the end of the school year, when the teachers in grades 9-12 report the final grade of each student, the teachers will note by code number any of the "dropout danger signals" which might apply to the student. The forms will be submitted to the placement coordinator who will review them for appropriate action with students who may be potential dropouts. The first lists were submitted at the close of the 1973-74 school year.
- f) Some coordinators in the rural systems made concentrated

efforts to establish contact with former students who had dropped out during the three previous years. Efforts to reach the former students by mailed questionnaire produced insignificant response. However, in the rural counties it was feasible to locate many of the former students through a network of personal acquaintances. The placement coordinators, and in some cases the counselors, made personal visits to the dropouts to apprise them of the placement service and to discuss their future plans. A number of dropouts were assisted by the placement coordinator.

Results of one year's efforts to identify and work with potential and actual dropouts in the rural systems may be summarized as a number of direct results and a number of related developments or indirect results.

- a) The actual number of students who were reported as dropouts from the three rural systems on the Alabama School Leavers Report for 1973-74 did not show a significant departure from the fluctuating patterns of the previous several years. However, all placement coordinators believed that their efforts had influenced the students they worked with toward staying in school. Also, the coordinators believed that their efforts made the school and community more aware of the special needs of dropout prone students. The effects of the coordinators efforts may not be reflected in dropout statistics for some time.
- b) One coordinator reported that he had contacted and worked with approximately 70 dropouts from earlier years, with the following results and findings:
 - 10 were placed on permanent jobs by the coordinator
 - 8 returned to school
 - 20 had made satisfactory adjustment
 - 6 had joined the Armed Forces
 - 25 to 30 were married or in some way confined to their homes because of motherhood, pregnancy, or other causes

Another coordinator was able to establish contact with six unemployed high school graduates who did not have the financial means or intention of continuing their education. He was able to counsel with five of these individuals and arrange for them to receive financial aid and to enroll in college. The sixth was placed in a full-time job.

- c) Administrative procedures for reporting and accounting for dropout students were improved. In the process of identifying potential dropouts, it was found that the prevailing procedures for reporting students who withdrew from school were slow and subject to inaccuracies, in that students who were transferring to another school system were sometimes confused with those who were dropping out.

- d) New course offerings were developed to meet the needs of the potential dropout. For example, in one system it now is possible for high school students to complete the English requirements by taking courses nearer their reading level and related to their career interests, such as reading about occupations of their choosing and making written and oral reports.
- e) There was increased participation in funded employment programs and compensatory education programs by individuals who were eligible for the programs.
- f) Local State Employment Service representatives began cooperating in informal arrangements for assisting dropouts. One system developed a referral arrangement by which the dropout is referred immediately to the State Employment Service for testing and counseling.

General Objective No. 3. To identify the placement needs and interests of exiting students.

The following procedures were used to identify the placement needs and interests of exiting students in the rural systems. These procedures were used in conjunction with those developed for identifying the needs of potential dropouts.

- a) Each site developed a form appropriate for its school's record system for recording the post-high school plans of the 12th graders.
- b) In most cases students were interviewed in the fall by the placement coordinator or by one of the counselors regarding their plans and their needs for assistance from the placement coordinator. The students were usually interviewed again in the spring to determine any change in plans or interests.
- c) Some of the coordinators arranged to have the Armed Services Vocational Aptitude Battery (ASVAB) administered to 12th graders. The ASVAB is available, free of charge, through any Armed Forces Recruiting Office. It can be administered to boys and girls. It is usually administered and interpreted by qualified military personnel.
- d) The counselors used a number of other standardized interest inventories which were part of their regular testing program.
- e) Two systems sent one or more of their counselors to a training course at the University of Alabama to become qualified to administer and interpret the General Aptitude Test Battery (GATB). The Board of Education in one system approved the purchase of the GATB testing materials, but unfortunately the school system was not able to administer the test during

the project reporting period because of delays in the delivery of materials.

General Objective No. 4. To develop procedures for intermeshing students' placement interests with state, community, or area resources.

A number of techniques were employed in the rural systems during the reporting period with the broad objective of establishing a more permanent system for assisting students in making a smooth transition from high school to a job or further training. Included among the techniques were:

- a) Field trips to neighboring technical institutes and junior colleges.
- b) Career days and college days held in the schools. One system initiated a cooperative effort with the city systems within the county in sponsoring a Health Careers Day. This event was arranged through the Health Careers Council of Alabama. During the day about 1500 students were able to select information from a field of approximately 50 different health occupations.
- c) Aptitude testing and individual counseling, with emphasis on providing job information to the students.
- d) Pre-employment information, arranged by the placement coordinator and provided by either the placement coordinator, counselors, or teachers to classroom groups.
- e) Assisting students in making applications for financial aid and for post-secondary education.
- f) Placing students in part-time jobs for work experience and exploration. One coordinator was able to place 38 students in non-paying student-learner positions and 22 students in positions for wages.

General Objective No. 5. To develop procedures and appropriate instrumentation for accounting for and following up all students who exit the school system.

The general procedure followed in meeting objective number five was for the state project staff to develop the follow-up instrumentation and for each of the placement sites to develop methods for collecting the follow-up data. A questionnaire with fourteen major items, plus a number of sub-items, was provided to all placement sites.¹ The state project staff suggested that data be gathered between July 15 and

¹See Appendix I for a sample of the questionnaire.

August 15, 1974. Each site was expected to follow up graduates in the experimental and control groups as well as persons who had dropped out during 1973-74. In view of the short period of time available to collect data, the state project staff recommended that a random sample of each group be drawn. The state project staff assisted each placement site in identifying a 50 percent random sample of the experimental group and of the control group, in sites where a control group had been designated. A separate random sample of 50 individuals was drawn from those who had dropped out of the project schools during 1973-74. In sites where less than 50 individuals were reported as dropouts, all dropouts were included in the sample to be contacted.

A number of methods were employed by the placement coordinators in the rural systems to collect the follow-up data. One system relied entirely on personal visits to the graduates and dropouts. Data from about 87 percent of each sample group in this system were obtained. Two systems used a mail-out procedure, followed by telephone contact. Using these combined procedures both systems were able to contact about 63 percent of their experimental sample. Collecting data from dropout students by mail or telephone proved to be difficult. System A collected data from 14 percent of the dropouts and System C contacted 35 percent of its dropouts. The numbers of students in the sample groups and the response rates of each group in the three rural systems are summarized in Table 19.

A series of chi-square tests of independent samples was conducted on responses to selected items of the follow-up questionnaire. It was determined that in System C there were no significant differences in the responses of the control and experimental groups on any of the selected items. The experimental groups of the three rural systems were examined to determine whether or not there were significant differences between the three systems. It was determined that the experimental groups in the three rural systems did not differ significantly on the following variables: the number employed, the number planning further education and training, and the general manner in which those employed viewed their jobs. The analyses revealed that an average of 56 percent of the three groups were employed, and an average of 66 percent of the three groups had plans for further education, and an average of 58 percent saw their job as the only one available at that time and primarily one for earning money and gaining work experience. Forty-two percent saw their job as what they really wanted and wished to continue.

The chi-square analysis showed significant differences between the three systems on the responses to the item of whether the employment was full-time or part-time. An average of 84 percent of those employed and responding to the item in Systems A and C were in full-time jobs, whereas the corresponding figure for System B was 56 percent. When the responses for all three rural systems were combined, it was shown that an average of 69 percent of those in the experimental groups who were employed were in full-time jobs.

The response patterns observed on three of the selected items were such that they did not generate frequencies of sufficient size in all

TABLE 19
NUMBER OF RESPONDENTS TO THE FOLLOW-UP
QUESTIONNAIRE IN THREE RURAL SCHOOL SYSTEMS

SCHOOL SYSTEM	EXPERIMENTAL GROUP				CONTROL GROUP			
	STUDENT POPULATION	# IN SAMPLE	# OF RESP.	RESP. AS % OF SAMPLE	STUDENT POPULATION	# IN SAMPLE	# OF RESP.	RESP. AS % OF SAMPLE
A	105	52	33	64				
B	183	92	80	87				
C	86	43	27	63	115	57	23	40
TOTALS	374	187	140	75	115	57	23	40

SCHOOL SYSTEM	DROPOUT GROUP				TOTAL OF ALL GROUPS			
	STUDENT POPULATION	# IN SAMPLE	# OF RESP.	RESP. AS % OF SAMPLE	STUDENT POPULATION	# IN SAMPLE	# OF RESP.	RESP. AS % OF SAMPLE
A	21	21	3	14	126	73	36	49
B	79	50	44	88	262	142	124	87
C	49	49	17	35	250	149	67	45
TOTALS	149	120	64	53	638	364	227	62

cells to permit use of the chi-square test. However, the responses for all three systems were grouped together and reported as aggregate findings. (a) One of the items sought to determine whether or not the unemployed respondents were participating in the civilian work labor force. Participating in the civilian force was defined as being employed or actively seeking employment. The findings indicated that most of those unemployed, particularly the girls, could not be considered in the civilian labor force since they reported they were not wanting or seeking employment. Or, stated in different terms, the findings indicated that 81 percent of the boys and 46 percent of the girls in the experimental groups in the rural systems were participating in the civilian labor force. The unemployment rate of graduates participating in the civilian labor force in the rural systems can be calculated to be 4 percent for boys and 14 percent for girls. (b) Another item sought to

establish the degree of realism in the stated plans for post-secondary education. The findings indicated that an average of 83 percent of those in experimental groups in the rural systems who stated they planned to continue their education and training had received official acceptance into a post-secondary institution. (c) Another item sought to identify the persons or agencies which were helpful to the students in finding their first job after leaving school. The combined results for the three rural systems indicated that 52 percent of the experimental groups relied on contacts through friends and family members for locating their first job. School-based sources, including the placement coordinators, counselors, vocational teachers, etc., were reported to be helpful by 34 percent. Only 5 percent of the employed respondents in the experimental groups reported assistance from the State Employment Service.

B. METROPOLITAN SYSTEM

1. DESCRIPTION OF SETTING

a. Geography and Employment

School system D was a county system which served all urban and rural public school students residing in the county. County D encompassed a land area of 1390 square miles and had a total population in 1970 of approximately 317,000. The county had one large city with a metropolitan area population of approximately 260,000 and several small incorporated areas of 2700 or less population located 15 to 35 miles from the city. In 1970, 82 percent of the county population was urban and less than 3 percent was rural farm.

It has been estimated that at the time of this study the economic structure of the metropolitan area of County D included over one-half billion dollars invested in diversified industry, including shipbuilding, chemicals, paper and paper products, forest products, cement, roofing, paints, aluminum, oil, aircraft engines, and metals.

b. School System

School system D had a total enrollment in 1973-74 of approximately 66,000 students attending 81 schools. The system had 15 middle schools (grades 7 and 8) and 15 high schools.

In 1972-73, the system began the research and development phase of a career education project with a \$120,000 grant from Part C, Section 131(a), of Public Law 90-576. One of the activities of the project was to form "occupational cluster committees" made up of community leaders representing each of the fifteen occupational clusters identified by USOE. Seven committees were organized in the areas of health, fine arts and humanities, public service, marketing and distribution, agribusiness and natural resources, hospitality and recreation, and communication and media. The committees worked in the following task areas: (a) identification of community resource persons for each occupation in their respective clusters, (b) identification and provision of appropriate

materials, and (c) identification of observational, hands-on experiences and job opportunities in the community. In 1972-73, the project was designed to serve ten schools representing grades 1-12 arranged in feeder patterns. In 1973-74, the system continued career education emphasis with assistance of a \$35,000 grant from Part D, Section 142(d), of Public Law 90-576 and expanded activities to fifteen schools serving 16,000 students and involving over 700 teachers.

Job placement efforts prior to 1973-74 were limited to the cooperative vocational programs under the supervision of the director of vocational education. Placement was in the areas of business and office education, distributive education, and industrial cooperative training. Other vocational education programs offered during 1973-74 were in the areas of health occupations, day trades, and home economics. The first area vocational center in the system was opened in mid-year 1973-74.

The level of funding in System D was calculated to be \$685 per pupil in 1973-74. A total of 76 percent of the funds were reported to come from the various state and federal sources.

c. Selection of Experimental and Control Groups

Local project personnel in System D selected four high schools to participate in the placement component of the study. The selected schools were also participating in the career education project mentioned in the above section. Two of the schools had participated in the research and development phase of the career education project in 1972-73. The 1973-74 enrollments in grades 9-12 in the schools in the placement component were as follows:

<u>School</u>	<u>Enrollment</u>	<u>Number of Counselors</u>
I	1106	1
II	1405	2
III	2528	5
IV	1473	2

Experimental and control groups were identified by randomly selecting classroom groups from senior English classes in two of the schools and from senior social studies classes in the other two schools. One experimental and one control group were selected from each high school, except in the large school (number III in the above listing) where two experimental and two control group classes were identified. The five experimental classrooms contained a total of 156 students and the five control classrooms had 157 students in September 1973.

2. PROCEDURES AND RESULTS

In the following section the general objectives of the placement component are restated as they were listed on page 28 of this report, followed by a discussion of procedures and results that were observed in the metropolitan system.

General Objective No. 1. To identify state, community, and area resources capable of providing employment or further education and training for exiting students.

The methods for identifying employment and educational resources in the metropolitan system appeared to differ markedly from those developed in the rural systems in that relatively more emphasis was placed on identifying and working through existing organizations and agencies in the city. The methods reported by the placement coordinator in the metropolitan system included the following:

- a) Personal visits were made to major employers.
- b) Continuous contact was maintained with the Chamber of Commerce. In cooperation with the Chamber a comprehensive industrial occupational survey was undertaken. One of the objectives of the survey was the compilation of job openings and job training information which will be available to the school-based placement service.
- c) Improved working relationships were developed with government agencies and programs, such as the State Employment Service, the Comprehensive Education and Training Act, the Neighborhood Youth Corps, the National Alliance of Businessmen, etc. A number of summer employment slots were identified through these agencies.
- d) Contact was established with community, civic and professional associations for publicizing the placement service.

Two-year post-secondary facilities in County D included two technical colleges and one junior college. Another junior college was located in an adjoining county and provided bus service into County D. The size of System D and the extent of the two-year post-secondary facilities within the area enabled project personnel in System D, more than in any other project site, to develop the post-secondary portion of the placement component. Prior to the present study there had been relatively little planning between public school officials and representatives of the two-year post-secondary institutions regarding the problems of articulation between the levels of programs.

Procedures for establishing links with two-year post-secondary institutions included the following:

- a) A general meeting was held between local project personnel and representatives of the four two-year post-secondary institutions in the area. At this meeting the prevailing practices by which students move from high school to post-secondary programs were examined. Specific suggestions were made for subsequent actions aimed at improving articulation. (Several of these suggestions were acted upon and are presented as the following points.)

- b) Contact persons were identified in each of the four post-secondary institutions. These persons continued to meet at regular intervals with public school representatives to plan activities involving the public school system and their institutions.
- c) Informational programs and tours of post-secondary facilities were arranged for high school principals and counselors.
- d) Subject area teachers in high schools met with teachers of corresponding courses at post-secondary institutions for the purpose of developing sequence in instructional efforts.
- e) Arrangements were made for high school students to tour area post-secondary institutions on a more comprehensive basis.
- f) Arrangements were made for post-secondary personnel to serve as resource persons in local high schools.

General Objective No. 2. To develop a system for identifying potential dropouts.

General objective number two did not receive special emphasis from project personnel in System D because the Pupil Personnel Division of the administration of the school system was reported to be actively involved in services to potential dropouts.

General Objective No. 3. To identify the placement needs and interests of exiting students.

In identifying the placement needs and interests of exiting students, the placement coordinator in the metropolitan system functioned primarily to pull together the available data on students as it pertained to placement interests. Counselors in System D regularly administered vocational aptitude tests and interest inventories to the students. The results were made available to the placement coordinator. In addition, teachers in the project schools assisted in surveying students for career interests. Counselors and vocational counselors assisted in identifying students with particular career interests. The placement coordinator developed suitable forms for recording the expressed career interests and related information from the students.

General Objective No. 4. To develop procedures for intermeshing students' placement interests with state, community, or area resources.

One aspect of intermeshing students' placement interests and the available resources which the metropolitan system was able to emphasize involved the use of community resources in the project activities. As a result of the extensive efforts of the local project personnel to gain

support for the placement program among the business community, business and industry representatives were very cooperative in serving as classroom resource persons and in arranging tours of their facilities. The placement coordinator reported that the "occupational cluster committees" were an especially effective vehicle for involving the community resources. The cluster committees were begun in an earlier career education project and were later extended to all fifteen occupational clusters. A variety of input came from the community resources. In some instances personnel representatives made multiple presentations over a period of three days to small groups of seniors in each of the project schools. Teachers in the project schools were given extensive tours of a number of firms in the city. A number of businesses provided organized observational experiences for interested students.

The placement coordinator usually worked directly with the classroom teachers in the experimental groups in arranging for or providing pre-employment information. Pre-employment preparation included participation in discussions dealing with appropriate dress, poise and personal appearance, completion of a variety of application forms, preparation of resumes, and participation in simulated interviews. Students who wanted assistance in placement were referred to the placement coordinator. The coordinator arranged interviews for the student with prospective employers. The student usually was expected to arrange his own transportation to the interview.

The placement coordinator in System D provided the following summary of students from the experimental groups who were placed in jobs or observational experiences.

- 1 student taught music in a private school.
- 4 students did clerical work at the County Board of Health.
- 20 students were placed on "call out" basis for a food catering service.
- 19 students were involved in observational experiences in such areas as nursing, physical therapy, lab technology, day care centers, traveling sales representative, and archeological expeditions.
- 40 post-secondary observational experiences were provided for those students requesting placement in 4-year institutions.
- 15 students were placed for observation in an area technical college. Here each student was paired with another student for observational experiences in an area of his choice. Students observed in drafting, electronics, practical electricity, and diesel mechanics.

In addition, approximately 75 students received assistance from the placement coordinator in making plans for post-secondary education. It should also be pointed out that many teachers who were not in the project groups requested assistance from the placement coordinator in arranging for resource persons or observational experiences for students in their classes. The placement coordinator responded to the requests from these teachers. Thus, the total number of teachers and students

benefiting from the project in System D was much larger than appears in the summaries that have been presented in this report.

General Objective No. 5. To develop procedures and appropriate instrumentation for accounting for and following up all students who exit the school system.

The general procedure for conducting the follow-up in System D was the same as was reported for the rural systems.¹

The process of random selection of students to be included in the follow-up sample resulted in 71 experimental group, 82 control group, and 50 dropout group students being identified. The number of respondents and the response rate of each group are summarized as follows:

	Number in Sample	Number of Respondents	Rate of Response
Experimental Group	71	53	75%
Control Group	82	48	59%
Dropout Group	50	29	58%

The placement coordinator in System D used a combination of the mailed questionnaire and telephone contact to collect the follow-up data. The questionnaire was mailed with a stamped return envelope enclosed. However, the initial rate of response was less than 25 percent. Attempts were made to contact the non-respondents by telephone which brought the average response rate for all students up to about 64 percent. The placement coordinator in the metropolitan system reported that a major problem in conducting the follow-up study was not being able to reach the students through the addresses and phone numbers appearing in the school records.

The responses from the experimental and control groups were analyzed through a series of chi-square tests of independent samples. The same items were compared as were examined in the report on the rural systems. On the items selected for comparison there were no significant differences between the experimental and control groups.

The responses of the experimental group and control group were combined in order to present a description of selected characteristics of students in the project in the metropolitan system approximately two months after graduation. Among the findings were the following:

- a) Only about 38 percent of the two groups were employed; another 32 percent indicated they were not employed but wanting and looking for employment. The male unemployment rate among the respondents in the civilian labor force was 28 percent while the rate for females was 68 percent. As was found in the rural systems, the rate

¹See page 43 for a description of the general procedure.

of female participation in the civilian labor force was much lower than the male participation rate, 57 percent compared to 83 percent.

- b) Among the graduates who were employed, 62 percent said they had gotten their job through the help of a friend or family member. All school related sources, including counselors, vocational teachers, the placement coordinator, etc., were reported to be helpful by 21 percent of the employed respondents. The State Employment Service was not cited as a source of help by any of the employed respondents in the metropolitan system.

C. MEDIUM-SIZED CITY SYSTEM

1. DESCRIPTION OF SETTING

a. Geography and Employment

The city served by school system E was located in the extreme northeast corner of County E next to the Alabama-Georgia state boundary. A larger city and a military reservation were located immediately across the state line in Georgia. While the city served by school system E had a 1970 population of 25,000, the entire metropolitan area comprised by the two cities and the military installation had a total population of approximately 203,000. Unemployment in the metropolitan area in 1973 was among the lowest in the state. The area had a number of light manufacturing industries including textiles, food and food related products, brick and tile products, and paper products. Many of the firms had had major expansions in recent years.

b. School System

School system E had one high school for the entire city. Grades 9 and 10 were located on one campus, while grades 11 and 12 were located across town on another campus. The enrollments in grades 9-12 were as follows in 1973-74.

<u>School</u>	<u>Grade</u>	<u>Enrollment</u>
I	9	515
I	10	490
II	11	551
II	12	368

There were two full-time counselors working at each of the campuses.

Career education activities in System E began in 1972-73 when the system participated in a pilot project through Part C, Section 131(a), of Public Law 90-576. The system received a grant of \$77,115 to develop career education programs for grades 1-8. The project was continued in 1973-74 with the assistance of a \$25,000 grant from Part D, Section 142(d),

of Public Law 90-576. During both school years school personnel made intensive efforts to identify persons and facilities in the community that could contribute to career exploration experiences in grades 1-8. Field trips were very numerous for teachers as well as for students.

Job placement activities prior to 1973-74 included four cooperative education programs in the areas of business and office education, distributive education, trade and industrial education, and vocational home economics. Four instructors and approximately 150 students were involved in cooperative education programs in 1972-73. Two other programs, a work-study program for economically disadvantaged students who needed extra income and a work-experience program for students who wanted to work in the business community, were supervised by a part-time coordinator and involved about 40 students. Another option for students interested in work was a "work-exploratory" program in which students spent 2 hours per day in a non-remunerative position gaining observational and participatory experiences in a job of their choice. All of the various work and placement options were available to students during the 1973-74 year. The individual who served as placement coordinator in System E in the placement component of the project reported herein was closely involved in the career education and placement activities of the previous years.

There was no secondary area vocational center in the city. Post-secondary opportunities included a new community college which opened in mid-year 1973-74, a technical college within 30 miles of the city, and an out-of-state vocational-technical school in neighboring Georgia.

According to September 1973 enrollment figures provided by the Alabama State Department of Education and the total school revenues reported by project personnel, the per pupil expenditure in System E was \$582. Federal and state sources were reported to account for 73 percent of school revenues.

c. Selection of Experimental and Control Groups

In System E students are assigned to classes by computer scheduling. Thus, it was assumed by local project personnel that all classes represented heterogeneous random groupings of students. Experimental and control groups were identified from senior social studies classes. The experimental group was composed of four classes met by one social studies teacher and consisted of 105 students. This teacher worked closely with the placement coordinator in providing occupational and other pre-employment information to the students. The control group was composed of five classes met by a different social studies teacher and consisted of 154 students. The control group did not receive any instruction specifically related to job preparation during their social studies classes. It can be expected, however, that in a relatively small school, such as the project school in System E, there would be a fairly high level of informal student interaction, producing a degree of contamination between the experimental and control groups.

2. PROCEDURES AND RESULTS

In the following section the general objectives are restated as they were listed on page 28 of this report, followed by a discussion of the procedures that were developed and the results that were obtained in the medium-sized city system.

General Objective No. 1. To identify state, community, and area resources capable of providing employment or further education and training for exiting students.

The identification of employment and educational resources in System E during the project reporting period was more or less a continuation of the intensive efforts begun as part of the career education project during the previous year. The contacts made by the placement coordinator when he served in the system as a counselor and distributive education teacher were also valuable for the placement component of the project reported herein. The placement coordinator reported that he believed continuous person-to-person contacts in the business community were the most effective means of locating part-time and full-time places for student employment. In his words, this effort is a "time consuming public relations effort but a very necessary one."

The placement coordinator had developed and maintained good working relationships with the vocational cooperative coordinators and other teachers. All of these people assisted in identifying employment opportunities and in making placement referrals.

The placement coordinator in System E utilized an advisory committee to a greater extent than did any of the other sites in the placement component. Methods which worked well in forming and working with the advisory committee included the following points:

- coordinator identified and contacted prospective members. Eleven members were chosen to achieve a balance of industry, business, racial composition, male and female representation, and occupational clusters.
- local superintendent of education sent official letter to each person appointing him to the committee.
- at the first meeting a chairman, co-chairman, and recorder were elected. Placement coordinator oriented the committee as to its responsibilities, project objectives, and anticipated problem areas in the placement service.
- meetings were scheduled for every 2 weeks, at the committee's suggestion.
- meetings were in the school board office.
- meetings were held to one hour.

-- minutes of the previous meeting were mailed out just prior to the next meeting for the purpose of bringing members up to date and remind them of the next meeting.

At the end of the project reporting period the advisory committee developed two reports: (a) a list of suggestions for students in seeking a job, and (b) a resolution to the local superintendent of education supporting the concept of school-based placement services and offering suggestions for long range and immediate goals.

The placement coordinator in System E suggested that inviting a person from the local office of the State Employment Service to be a member of the advisory committee can be particularly helpful to a school-based placement service. The experience of System E indicated that by this technique the objectives of the school-based placement service can become clearly understood by the local State Employment Service and the various services of the State Employment Service can become readily available to high school students and graduates.

General Objective No. 2. To develop a system for identifying potential dropouts.

The procedures developed in System E for identifying potential dropouts involved the same basic approach as was reported for the rural systems, that is, reliance on the classroom teachers to identify the dropout prone individuals.¹ The placement coordinator reported that he was not able to counsel with all students in the process of dropping out but felt that this is an important procedure toward which future efforts will be directed. The coordinator also reported that the addresses and phone numbers appearing in school records are especially prone to inaccuracies for students who eventually dropout. If an exit interview is not completed before the student drops out it is very difficult to reestablish contact. In order to apprise the student of options available to him, including the services of the school placement coordinator, the exit interview appears to be of special significance.

General Objective No. 3. To identify the placement needs and interests of exiting students.

The following techniques were used in System E to identify the placement needs and interests of students:

- a) A placement file was set up for each student in the project.
- b) Early in the school year general orientations were presented to classroom size groups of students.
- c) A career interest survey card, developed by and available through the Explorer Scouts, was completed by the students.

¹See pages 39-42 for a complete description of the procedures developed by the rural systems relative to identifying dropouts.

- d) Other standardized instruments were administered, such as the Kuder Interest Inventory, Geist Picture Interest Inventory, Armed Services Vocational Aptitude Battery, or others as part of the counseling and testing program of the school.
- e) Students in the experimental group were exposed to a career exploratory unit by the teacher and then asked to select one occupation and write a report on it.
- f) Individual conferences were held by the placement coordinator, counselors, and the experimental group teacher to interpret all test results.
- g) Students who were identified as undecided about a job and with no plans for further education were referred to the State Employment Service where they were administered the General Aptitude Test Battery and counseled by the State Employment Service counselor.

General Objective No. 4. To develop procedures for intermeshing students' placement interests with state, community, or area resources.

The procedures developed in System E for intermeshing the interests of students with the available resources were similar to those observed in the other sites, including field trips to technical institutes and colleges, career and college days sponsored by the school, and individual counseling sessions.

One procedure which System E developed more thoroughly than any of the other systems participating in the placement component was the various programs by which students could gain on-the-job experience. Application forms were designed to allow students to apply for one of the programs. The various programs, which have been described earlier in this report, had the following enrollments during the project year:

Work experience	80
Work exploratory	6
Work study	31
Neighborhood Youth Corps	<u>85</u>
Total	202

Employers or supervisors rated the students' performance once during each grading period on forms designed by the school. In addition to the students placed during the school year there were 52 placed in part-time employment during the summer, plus those referred to the State Employment Service for Neighborhood Youth Corps summer jobs. The number of job placements reported here were for students who were not seniors. Placement of graduates is reported in a later section.

being employed or seeking employment, was 76 percent in the experimental group and 82 percent in the control group. The unemployment rate of respondents participating in the civilian labor force was 13 percent and 12 percent for males and females, respectively, in the experimental group and 22 percent and 40 percent for males and females, respectively, in the control group.

- b) Significantly more of the experimental group had made plans and acted on the plans for enrolling in some type of post-secondary training or education.
- c) The sources of help in locating a job after graduation did not differ significantly between the experimental and control groups. About 27 percent of both groups said assistance came through friends and family members. About 33 percent reported assistance from a school source, such as the placement coordinator, counselor, etc. About 40 percent of the respondents indicated that some "other" source was helpful. It appeared that by "other" source the student usually meant his own self-application. Eleven percent reported some assistance from the State Employment Service. The coordinator believed that the relatively high number indicating self-application should be interpreted cautiously, since it may be an anomaly associated with the method of collecting the data.

General Objective No. 5. To develop procedures and appropriate instrumentation for accounting for and following up all students who exit the school system.

The general procedure for conducting the follow-up in System E was the same as was reported for the rural systems.¹

Early in the 1973-74 year, the placement coordinator and counselors in System E conducted a follow-up of the previous year's graduates. A letter was sent to the graduates asking them to return an enclosed, stamped reply post card. Approximately 30 percent responded. Disappointed by the low response rate, the team decided to rely on a telephone follow-up for the project activities. At the time of the project follow-up survey, the coordinator and a clerical aid attempted to phone all students that had been identified in the selected samples. For those students without phones, a letter was mailed requesting the student to call the school. About 25 percent of those without phones contacted the school.

Drawing the 50 percent random samples, as described earlier in this report, resulted in 49 experimental group students, 76 control group students, and 51 dropout students being selected for follow-up data collection. The number of respondents and the rate of response for System E are summarized below. It can be calculated that an overall rate of response of 84 percent was achieved through the telephone survey technique.

	Number in Sample	Number of Respondents	Rate of Response
Experimental Group	49	42	86%
Control Group	76	65	86%
Dropout Group	51	40	78%

A series of chi-square tests of independent samples was conducted on the responses to the experimental and control groups to selected items on the follow-up questionnaire to determine whether or not there were significant differences between the two groups.² The findings included:

- a) In the experimental group 67 percent were employed as compared to 55 percent of the control group; however, the difference was not statistically significant. Sixty percent of the females in the experimental group and 51 percent in the control group were employed, which was much higher than in any of the other project sites. The percentage of females in the control group seeking employment was 34 percent, compared to 8 percent in the experimental group. Participation in the civilian labor force, that is,

¹See page 43 for a description of the general procedure.

²See Appendix I for a sample of the questionnaire.

III. SUMMARY OF PROBLEMS AND RECOMMENDATIONS

A. PROBLEMS ENCOUNTERED

The coordinators in the five school systems in the placement component identified a number of problems which affected the development of the school-based placement service. Some of the problems cited appear to have broad application while some may have been peculiar to the current project sites during the reporting period.

1. Late starting date. Placement coordinators were not employed for the project until September 1, and in one system not until mid-October. Class schedules had been set up and teachers were not familiar with the placement concept. Some teachers were reluctant to replan their programs.
2. Class scheduling precluded work experience in some cases. Class and school bus schedules were not always compatible with the needs of students to gain work experience. In at least one system in the placement component, the school day schedule was such that a student never had a period of time free at the same time each day. Thus, it was impossible to enter into cooperative vocational programs or take a part-time job involving school release time.
3. Competition for jobs between city and county school systems. In areas where city school systems have been formed in the midst of a county system, the coordinators experienced some difficulty in finding jobs for the county students. It seemed that some employers had long standing arrangements with vocational teachers from the city systems and did not wish to jeopardize the relationship, or in some cases, could not afford to hire additional student labor.
4. Rural students live too far from major business areas. Some rural students may reside as much as 30 miles from a prospective job. Traveling time, even if a car is available, may be prohibitive for a high school student on a part-time job.
5. Transportation problems for lower income students. Students from lower income families, in the city and especially in the rural areas, frequently cannot accept part-time employment simply because they lack transportation.
6. Job possibilities identified early not available in June. Coordinators in the placement component visited many employers early in the school year and identified job prospects for the following June graduates. In many cases the employers were reasonably firm in their hiring expectations. However, because of the general tightening of the economy they could not hire graduates in June.

7. Return rate of mailed questionnaires too low. School systems in the placement component did not achieve a mailed return rate of over 30 percent on the follow-up questionnaires. The higher total response rates reported by some systems were the result of personal interviews or telephone surveys, both of which are time consuming methods.
8. More efficient counseling methods needed. All of the systems participating in the placement component utilized individual counseling, frequently at two or more sessions, with students in the experimental groups. While this method appeared to be effective in the project, it does not appear to be a realistic method for all schools, given the staffing constraints faced by most systems.
9. Methods for increasing the student's awareness of his aptitudes, interests, and abilities need more attention. Placement coordinators and counselors in the current project relied heavily on various standardized tests, accompanied by counseling sessions, to assess the students' placement interests and needs. Aside from the time factor inherent in this method, there was evidence that some students did not take the testing seriously and even were antagonistic to the tests.
10. Administrative procedures and poorly kept school records sometimes hinder work with potential and actual dropouts. Nearly all coordinators reported that the methods used in their systems for reporting absenteeism, withdrawals, or other changes in students' status were slow and inaccurate. Students transferring to another system were sometimes reported as dropouts, and vice versa. Potential dropout students became actual dropouts and contact was lost before the coordinator could determine if job placement was in the best interest of the student. Incomplete or incorrect addresses in school records complicated the follow-up procedures.
11. No satisfactory information storage and retrieval system developed. Methods utilized by the placement coordinators for recording information on job possibilities and student placement interests appeared to be satisfactory for the current project reporting period. However, it was recognized by all project personnel that as the placement and follow-up service grows, one of the important needs will be an efficient system for storing, retrieving, and updating employer and student information.
12. The problem of image. In spite of the recent and widespread interest in career education and placement, many parents and teachers appeared to present the 4-year college and the white collar job as the only "worthy" goals. Technical jobs, high

salaries notwithstanding, are given little consideration and continue to hold a poor image in the minds of some parents and teachers.

B. RECOMMENDATIONS AND "SPIN OFF" RESULTS

In the following section the general conclusions and recommendations of the placement coordinators are summarized. These recommendations are in addition to the specific procedures which were reported in the Procedures and Results sections. Following the recommendations of the coordinators is a listing of other longer-range developments, termed "spin-off" results, which the state project staff saw as emanating from the placement component.

1. RECOMMENDATIONS FROM PLACEMENT COORDINATORS

- a) The State Employment Service should develop and coordinate a "student oriented job bank" to supplement the present job bank. Each county representative of the State Employment Service, in cooperation with the state office, should establish a county-wide student oriented job bank. This job bank would include listings from county employers who have openings specifically for students and recent graduates, also listings of federal and state programs that could provide jobs for students. This listing would be available to school placement coordinators for counseling purposes. The State Employment Service would serve as a resource agency for additional counseling, testing, and placement.
- b) A school-based placement service should be administered from a central office which encompasses all exiting students within a county, a metropolitan area, or other definable commuter area. Or conversely, each school system, for example each city system and the county system within a given county, should not attempt to establish an autonomous placement service, since this would lead to needless duplication of efforts. A somewhat centralized system may require the cooperation of two or more school systems and a sharing in the financial support of the placement service.
- c) Students should be involved in setting up and operating a job placement service.
- d) A comprehensive school-based placement service should attempt to find satisfactory placement for 100 percent of the exiting students, but should take special interest in determining how part-time employment may serve non-goal oriented students.
- e) Placement personnel should be hired on a 12-month basis. A system contemplating a placement service should begin well in advance of the opening date of school in order to achieve maximum student and teacher orientation and involvement.

- f) Close contact should be maintained between the placement coordinator and prospective employers in order to identify job openings as they become available. Students expecting to graduate in June should be placed and working, if possible, before June in order to reduce the large number of students entering the job market at one time.
- g) School systems expecting to collect valid data through follow-up of their graduates must utilize various incentives to increase the response rate to a mailed questionnaire. In most school systems the total number of graduates will be relatively small in any one year, so it becomes crucial to the validity of the data to achieve a high response rate.
- h) Group counseling and more placement related counseling by classroom teachers should be utilized. Also, methods in addition to standardized tests are needed to assist students in developing self-awareness of their aptitudes, interests, and abilities.
- i) A school system establishing a comprehensive placement and follow-up system should define its objectives in measurable terms and should delineate the duties of school system personnel involved in placement activities.
- j) School systems should employ counselors or other teachers during the summer to do follow-up of dropouts. During the follow-up phase of the placement component it was found that parents of dropouts were pleased that the school "cared" about their children even after the children had left school. In addition to possibly assisting the dropouts in making adjustment to a work situation, contact with them and their families can be a good source of improved public relations for the school system.
- k) Data from follow-up studies of students should be made available to school system curriculum planners for consideration in curriculum revision.

2. "SPIN-OFF" RESULTS

This document is intended to describe the methods developed in five project sites in the placement component during a 12-month period. However, as the project progressed a number of other developments occurred and continued to occur as direct results of the project. These results have been termed "spin-off" results and include the following:

- a) Interest in a state-wide program for school-based placement services is growing. During the project year the Research Coordinating Unit of the Division of Vocational Education and Community Colleges, Alabama State Department of Education, hosted two state-wide planning sessions in which representatives of secondary and post-secondary schools and representatives of

business and labor discussed the idea of a comprehensive placement service and the form it might take in Alabama schools. At the time of the writing of this report a committee from those who have participated in the planning sessions is working with the Alabama Association of School Administrators to publicize and gain support for a state-wide school-based placement service.

- b) Twenty-six school systems submitted proposals to the Research Coordinating Unit for developing school-based placement programs in 1974-75 with assistance of funds from Section 142(d) of Part D of Public Law 90-576. A total of six proposals were funded, three from systems that had participated in the placement component and three new sites. One of those funded was for a cooperative venture in which a county system from the placement component secured the cooperation of the two city school systems within the county in forming a county-wide placement service.
- c) The state project staff and several local placement coordinators presented a program on placement services at the annual summer conference for vocational counselors.
- d) Local placement coordinators have served as resource persons at state-wide workshops for counselors studying how counselors can assist in placement activities.
- e) More interest in career education was generated throughout the rural systems. The project served to pull together and coordinate efforts of individual teachers. "Career education committees" were formed in several schools with assistance from the placement coordinators.
- f) Several systems revised their procedures for keeping attendance and dropout records.
- g) Two systems provided funds to send one or more of their counselors to a training course at the University of Alabama to become qualified to administer and interpret the General Aptitude Test Battery (GATB). Testing materials for the GATB were purchased by one system.

C. LIMITATIONS OF PLACEMENT COMPONENT FINDINGS

There were certain constraints under which the placement component was implemented which limit the generalization of findings. Any attempt to generalize the findings or apply the methods described in this report should give consideration to the following limitations.

1. A number of limitations are related to the time frame for project activities as set forth and approved in the amended application.

- a) All methods and procedures that have been reported were the results of efforts occurring in one school year and the following summer. Since the subjects for the placement component activities were primarily graduating seniors, there was, in effect, opportunity for only one experimental trial. It seems entirely reasonable to expect that second, third, or more trials, that is second, third, or more project years, would have resulted in somewhat different techniques, or at least provided some validation of the techniques developed during the initial trial. The techniques reported from this project can be interpreted no further than methodologies that appeared to be effective in selected school systems during the first year of establishing a placement service where nothing similar had existed before.
- b) The time frame of the project produced a very serious limitation on the generalizability of follow-up procedures. Within the project time frame, follow-up data had to be collected prior to September. Thus, the data reflect summer activities, including employment for some and vacationing for others who were planning further education in the fall, and can provide little indication of a student's transition from school into permanent employment. The follow-up instrument was designed specifically to gather data under these circumstances and is not recommended for general use without modification.
- c) Potential dropout identification assumed a narrow definition in the study. In most project sites the identification was the subjective judgements of classroom teachers in grades 9-12, aided in some systems by a list of characteristics assumed to be associated with dropping out. This method generated lists of names of students whom the placement coordinators continued to work with throughout the project. The specific limitations in the reported procedures for identifying potential dropouts include:

--there was not enough time nor a satisfactory control group to establish the validity of a teacher's judgement of whether or not a student would eventually become a dropout.

--the only dropout prevention activities studied in the project were those of the project coordinators with students approaching or past the maximum compulsory attendance age. Identification and prevention work at an earlier age were not studied.

The procedures described in this report for potential dropout identification should be interpreted as methods which appeared to be effective for identifying certain students who may benefit from part-time employment.

2. The designations of "experimental" and "control" groups were not appropriate in the placement settings. It was impractical to maintain true experimental conditions in the placement sites, given the objectives of the placement component. The success of a placement service depends directly on its being known and utilized. To create a true control group within a school system attempting to establish a comprehensive placement service is hardly tenable. A post-facto analysis reveals that the use of control groups in the placement component was incongruent with the objectives of the project.
3. The procedures that were developed for recording information from students and from employers may be applicable only to systems in the early phases of establishing a school-based placement service. A permanent placement service serving large numbers of students will have to utilize modern information processing systems. The project reported herein did not address itself to developing a computerized data storage and retrieval system.

D. PLACEMENT COMPONENT COSTS

In the placement component of the project reported herein, the costs in each of the participating school systems consisted of salary for the placement coordinator, travel for the placement coordinator, plus a portion of the time from regular duties by the local project director and one or more counselors or teachers.

The coordinator's 12-month salary in all systems was \$12,000, plus benefits. Travel expense was calculated at the rate of 12 cents per mile. The average number of miles traveled per month ranged from 208 in the metropolitan system to 619 in one of the rural systems. The overall per month average for all five systems was 350 miles. The three rural systems had the highest travel requirements; together they averaged 431 miles per month. Thus, it may be calculated that at 12 cents per mile, the average annual travel cost for within-system travel was \$504, with a range from \$300 to \$891.¹

The contracts between the participating school systems and the Alabama State Department of Education specified that each system would provide a total equivalent of fifteen work-days of administrator time and twenty-six work-days of counselor time to project activities. In estimating the cost of administrator time for project activities, an estimated average annual salary figure of \$20,000 was used, since the administrators serving the local projects held various positions within the administrative structure of the local systems. It was assumed that administrators were employed for 52 weeks, five days per week, or a total of 260 days per year. Fifteen work-days can be calculated to

¹The travel requirements cited represent travel within the school system boundaries. Out-of-system travel, including transportation and per diem expenses for local project personnel to attend project related conferences, are not included in these calculations.

represent an input of approximately \$1154 from an administrator.

In estimating the financial value of the twenty-six work-days from counselors, an annual salary figure of \$14,500 and a ten-month, or 220 day, period of service were assumed. On this basis it can be calculated that the twenty-six work-days from counselors represented a contribution of approximately \$1714 to project activities.

The average annual costs for each project site in the placement component may be summarized as follows:

Salary of placement coordinator	\$12,000
Benefits (16% of salary)	1,920
Average travel cost for in-system travel @ .12	<u>504</u>
TOTAL	\$14,424

Estimated annual cost of administrator and counselor time:

Administrator (15 work-days)	\$ 1,154
Counselors (26 work-days)	<u>1,714</u>
TOTAL	\$2,868

The amount of time which administrators, counselors, and teachers devoted to project activities was reported to the state project staff at the close of each month. The amounts of time reported, particularly from counselors, exceeded the amounts suggested in the contracts in all project sites.

It is recognized that the cost figures that have been presented represent only surface costs. The expenses for supplies, materials, office space, secretarial services, and so forth for the placement activities were absorbed by the local systems. The amount of time contributed by classroom teachers was difficult to document but represented a substantial contribution to the success of the placement component.

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APPENDIX A

SELECTED SECTIONS OF AMENDED APPLICATION

A. SITE IDENTIFICATION

The project will be directed toward ten specific sites selected for their ongoing and projected commitments to the career education concept and for their respective unique differences so that the impact of the programs and materials developed may take on more significance. Five sites will devote their efforts toward the career exploration component and five toward the placement and follow-up component. These two project components are described below.

The ten sites were selected on the basis of the following criteria:

For the Exploration Component

1. Commitment to the career education concept;
2. Community resources are identified and made available;
3. The activities planned are school centered;
4. The numbers of students and teachers to be involved are sufficient to insure the relative success of the endeavor;
5. The exploration experiences are planned consistent with realistic career opportunities relative to community and surrounding areas;
6. A variety of careers are explored during the duration of the project;
7. Provisions are incorporated in the exploration plan for integrating the exploratory activities with other ongoing school experiences;
8. The exploration plan is not limited to a single place or program within the school;
9. Career guidance activities are planned as a part of the program; and
10. Exploration activities planned are appropriate for each grade level represented and both sexes.

For the Placement Component

1. A method for identifying and cataloging potential school leavers is included;
2. Evidence is presented that some type follow-up instrumentation has been developed or is being developed;
3. The numbers of students, counselors and teachers to be involved are sufficient to insure the relative success of the endeavor;
4. The placement activities are planned consistent with realistic employment and post-secondary education opportunities relative to the community and surrounding areas;
5. Orientation is provided for each exiting student during the placement function pertaining to subsequent follow-up activities;
6. The placement methodology and the follow-up technique is

APPENDIX A continued

- adequately described;
7. Provisions are incorporated in the placement function for correlating an exiting student's level of achievement, degree of training, areas of interest, and aptitudes with available employment and post-secondary education opportunities;
 8. The follow-up technique described is realistic in terms of time and economic requirements;
 9. Guidance and counseling activities are planned as an integral part of the program; and
 10. The placement component is not isolated at a single school or facility and is coordinated at the system level.

C. FOCUS OF PROJECTS

The project will focus on programs at the junior high or middle school level designed to provide career orientation and meaningful exploratory experiences for students.

Scope of Work

1. Determination of all available community or area resources capable of providing specific or a variety of career exploratory experiences for junior high school children enrolled in the public schools of the State of Alabama;
2. Development of alternative methodologies whereby these resources can best be utilized in an instructional setting for the greatest benefit of the largest number of students;
3. Implementation of the most promising of these alternative methodologies in carefully controlled instructional settings;
4. Determination of the relative worth of each alternative methodology in providing an individual student with a broad based program of career exploration at the junior high school.

Another focus of the project will be programs designed to insure the placement of all exiting students in either: (a) a job, (b) a post-secondary occupational program, or (c) a baccalaureate program.

Scope of Work

1. Development of a system for identifying and cataloguing potential school leavers;
2. Development of follow-up instrumentation for all exiting students with emphasis placed on grades 7-12.
3. Development and testing in several school settings a comprehensive placement program providing for the placement of every exiting student in a job, a post-secondary occupational program, or a baccalaureate program.
4. Determination of State, community, and area resources capable of providing specific, or a variety of employment opportunities for potential school leavers;

APPENDIX A continued

5. Determination of state, community, and area resources capable of providing specific or a variety of post-secondary and/or baccalaureate opportunities for potential school leavers;
6. Development of alternative methodologies whereby these resources can be intermeshed with school leavers' identified competencies and abilities;
7. Implementation of the most promising of these alternative methodologies in carefully controlled settings; and
8. Determination of the relative worth of each alternative methodology in providing an individual student with a realistic placement upon leaving the school setting.

D. MEETING R & D, COST/TRANSPORTABILITY, AND COMPREHENSIVENESS REQUIREMENTS

R & D Requirement

Selected students involved in each of the project components will be carefully measured both pre and post to determine what changes have taken place as a result of participation in the various project activities. During the early months of the project (June 1973 to September 1973) the required instrumentation for measuring the appropriate student outcomes will be selected or developed, validated, and approved for administration. Appropriate statistical techniques will be utilized to analyze the data. Process evaluations will be designed in such a way as to provide the necessary techniques whereby program revisions can be made at appropriate intervals.

Cost/Transportability Requirement

Each component will be conducted in such a way as to collect and analyze all financial data required to complete that component so that potential transportability can be meaningfully judged.

Comprehensive Requirement

All project activities will be designed in such a way as to cut across all educational experiences of the junior high student to determine their relative contributions to the exploratory activities being developed. Each educational activity experienced by a given student at some point in time will be utilized in identifying and cataloging potential school leavers 7-12 and in developing a network intermeshing identified competencies and abilities with available placement options.

E. CONCENTRATION OF FUNDING

The Division of Vocational-Technical and Higher Education realizes a need for a single systematic project design administered from the state office level in order to insure that the project

APPENDIX A continued ,

activities have sufficient impact and comprehensiveness. The Division will not endeavor to fund ten separate sites for the accomplishment of the objectives set forth for this project but will instead coordinate and conduct a single project at ten sites in the State of Alabama. By so doing there will be no confusion of purpose or procedure and results will indicate a true picture of a total effort and not fragmented pieces of separate smaller efforts.

F. PROJECT DURATION

June 1, 1973 - November 30, 1974 (18 months)

G. THIRD PARTY EVALUATION PLAN

A potential evaluator will be invited to submit a proposed evaluation plan and cost estimate pertaining to the project. A component of the research project will consist of the development of specific behavioral objectives for each of the two project concentrations. Cost transportability data will also be collected. The third party evaluator will be charged with the development of an evaluation design for the evaluation of the effectiveness of the project's administration (supervision, organization, materials, and approaches) as well as the output of the project, as measured by changes in student behavior during the exploratory component and the effectiveness of the placement activities during the placement component.

H. RESPONSIBLE STATE ORGANIZATIONAL UNIT

Alabama Research Coordination Unit

APPENDIX B

MEMORANDUM TO SUPERINTENDENTS SOLICITING PROPOSALS

June 1, 1973

TO: CITY AND COUNTY SUPERINTENDENTS

On May 4, 1973, the Alabama State Department of Education, Division of Vocational-Technical and Higher Education, was awarded a grant by the U. S. Office of Education. This grant was for a 15-month research project designed with two research priorities:

1. Middle School Career Exploration

- a. Determination of available resources including community and area resources capable of providing specific or a variety of career exploratory experiences for junior high school children enrolled in the public schools of the State of Alabama;
- b. Development of alternative methodologies whereby these resources can best be utilized in an instructional setting for the greatest benefit of the largest number of students;
- c. Implementation of the most promising of these alternative methodologies in carefully controlled instructional settings;
- d. Determination of the relative worth of each alternative methodology in providing an individual student with a broad based program of career exploration at the junior high school.

2. Placement of All Exiting Students

- a. Development of a system for identifying and cataloguing potential school leavers;
- b. Development of follow-up instrumentation for all exiting students K-14;
- c. Development and testing in several school settings in a comprehensive placement program providing for the placement of every exiting student in a job, a post-secondary occupational program, or a baccalaureate program;
- d. Determination of state, community, and area resources capable of providing specific, or a variety of employment opportunities for potential school leavers;
- e. Determination of state, community, and area resources capable of providing specific or a variety of post-secondary and/or baccalaureate opportunities for potential school leavers;
- f. Development of alternative methodologies whereby these resources can be intermeshed with school leavers' identified competencies and abilities;
- g. Implementation of the most promising of these alternative methodologies in carefully controlled settings; and
- h. Determination of the relative worth of each alternative methodology in providing an individual student with a realistic placement upon leaving the school setting.

APPENDIX B continued

Up to ten school systems may participate in this project (at least five directed toward each of the priorities). However, a single system may apply for participation in both priorities making it feasible that only five systems will participate.

Your system is invited to submit a plan for participation in this project if you can establish the following prerequisites:

- a. An ongoing or projected commitment to the career education concept; and
- b. A unique approach toward either one or both of the research priorities listed above. This may be an implemented technique or a planned program.

Research and Evaluation state personnel from the Division of Vocational-Technical and Higher Education will cooperate with your system through the collection and analysis of data relative to the two priorities in an effort to determine the most effective methodologies toward accomplishment of the research goals.

Systems selected to participate in the placement focus will receive \$12,000 to support a placement coordination for the program. Systems selected for the exploratory focus will receive approximately \$7,000 for the purchase of supplies, materials, and small equipment to operate and evaluate a career exploratory offering at the middle school level.

If you desire to be considered for participation in this project, please direct a letter of application to me including:

1. the research priorities you desire to participate in;
2. a statement of assurance of committal to the career education concept;
3. a description of the approach your system will use toward accomplishment of the research goal; and
4. a description of the site to be used including number of schools, teachers, counselors, and pupils to be involved, socio-economic nature of the community, etc.

We are pleased to be able to participate once again in the further realization of career education implementation in Alabama and look forward to a cooperative venture through this project toward a greater impact with Alabama's youth. We will be pleased to consider your application for participation. Applications are due post-marked no later than June 15, 1973.

Sincerely,

T. L. Faulkner, State Director
Vocational-Technical and Higher Education

APPENDIX C

SUGGESTED CRITERIA AND PROCEDURES FOR SELECTING SITES FOR THE RESEARCH AND DEVELOPMENT PROJECT IN CAREER EDUCATION

Step I

Review applications to determine if they contain the following:

- A. Statement of assurance of committal to the career education concept.
- B. Adequate site description:
 - 1. Number of schools involved.
 - 2. Number of teachers involved.
 - 3. Number of counselors involved.
 - 4. Number of pupils involved.
 - 5. Socio-economic nature of the community.

Step II

- A. Review applications for exploration component to determine if they meet the following criteria:
 - 1. Hands-on experiences are provided each participating student;
 - 2. Community resources are identified and made available;
 - 3. The activities planned are school centered;
 - 4. The numbers of students and teachers to be involved are sufficient to insure the relative success of the endeavor;
 - 5. The exploration experiences are planned consistent with realistic career opportunities relative to the community and surrounding areas;
 - 6. A variety of careers are explored during the duration of the project;
 - 7. Provisions are incorporated in the exploration plan for integrating the exploratory activities with other ongoing school experiences;
 - 8. The exploration plan is not limited to a single place or program within the school;
 - 9. Career guidance activities are planned as a part of the program; and
 - 10. Exploration activities planned are appropriate for each grade level represented and both sexes.
- B. Review applications for placement component to determine if they meet the following criteria:
 - 1. A method for identifying and cataloguing potential school leavers is included;
 - 2. Evidence is presented that some type follow-up instrumentation has been developed or is being developed;
 - 3. The numbers of students, counselors, and teachers (if any) to be involved are sufficient to insure the relative

APPENDIX C continued

- success of the endeavor;
4. The placement activities are planned consistent with realistic employment and post-secondary education opportunities relative to the community and surrounding areas;
 5. Orientation is provided for each exiting student during the placement function pertaining to subsequent follow-up activities;
 6. The placement methodology and the follow-up technique is adequately described;
 7. Provisions are incorporated in the placement function for correlating an exiting student's level of achievement, degree of training, areas of interest, and measured aptitudes with available employment and post-secondary education opportunities;
 8. The follow-up technique described is realistic in terms of time and economic requirements;
 9. Guidance and counseling activities, including vocational guidance, are planned as an integral part of the program; and
 10. The placement component is not isolated at a single school or facility and is coordinated and conducted at the system level.

APPENDIX D

EXAMPLES OF LEA PROGRAM OBJECTIVES STATED IN PERFORMANCE TERMS --

FOR DISCUSSION ONLY ----- Exploration Sites

1. By the time that the final (local) project report is submitted, after having used Part C research funds and local Part C matching personnel time, the project personnel of _____ school system will have produced a list of all available community or area resources capable of providing specific or a variety of career exploratory experiences for the junior high school students enrolled in their system. A list of all available community resources will include a description of:
 - a. name of resource (person or company), mailing address, phone number;
 - b. name of person (in school or community) who contacted the resource;
 - c. name of person in school who should make any future contact with resource; the criteria used in identifying the resource, such as times available, type of experience willing to provide, lead time necessary;
 - d. name of person or his title who will provide or conduct the experience if different than "a";
 - e. the format necessary to contact the resource in the future, i.e. letter, phone call, personal visit, etc.;
 - f. the students, teachers, counselors, principals or administrators to whom the resource should be made known, i.e. science teachers, English teachers, etc.;
 - g. the plan for incorporating this resource information into the career education program.

2. By the time that the final (local) project report is submitted, after having used Part C research funds and local Part C matching personnel time, the project personnel of _____ school system will have developed alternative methods, whereby those resources (identified in Objective #1) can best be utilized for the greatest benefit of the largest number of students.
 - a. a listing of the specific objectives (i.e. performance objectives) which the methods are designed to accomplish;
 - b. a description of the method being developed including a description of the techniques used in the method;
 - c. a compilation of numbers of persons directly involved and time spent by these persons in developing the methods;
 - d. a description of the materials needed in developing the methods;
 - e. the identification of special problems encountered in developing the methods.

3. After determining available community resources (Objective 1) and developing alternative methods for using these resources (Objective 2), the _____ school system will implement the most

APPENDIX D continued

promising of the alternative methods for experimental students in the project. In accomplishing this objective, the site will provide in written form:

- a. a factual, exact and complete description of the procedures used in implementing the method. This description should include:
 - (1) the performance objectives which were attained by the method;
 - (2) the personnel involved and time spent by each person in implementing the method;
 - (3) the necessary materials, types and amounts, used in implementing the method.
 - b. an accurate count of the number of students involved in experimental groups and control groups;
 - c. a description of procedures used to insure that control group students were not exposed to same treatment as were experimental group students;
 - d. an accurate account of the number and kinds of methods which were used for exploratory students;
 - e. an accurate account of the amount of time each student was exposed to the implemented method.
4. At the end of the project, after implementing alternative methods of using community resources in carefully controlled instructional settings, the _____ school system will have determined the relative worth of each alternative method in providing an individual student with a broad based program of career exploration at the junior high school. In accomplishing this objective, each site will have developed procedures and appropriate instrumentation for determining the relative worth of the methods tried out. These procedures and instruments will include:
- a. a description of the process used to determine the worth of methods;
 - b. a description of the kinds of outcomes produced by the methods in terms of cognitive, or affective, or psychomotor gains by students;
 - c. a description of cost related factors associated with the methods such as cost in personnel utilization, transportation, equipment necessary, class hours used or needed;
 - d. a description of any special arrangements necessary to the proper functioning of the methods such as:
 - (1) necessary prearrangements with school personnel;
 - (2) necessary prearrangements with employers in the community;
 - (3) necessary prearrangements in --
 - (a) physical facilities (or changes of existing physical facilities)
 - (b) class schedules (or changes)
 - (c) school personnel allocations
 - (d) curriculum changes

APPENDIX D continued

- e. a description of the economic consideration of the methods used:
- (1) cost
 - (2) cost effectiveness

APPENDIX E

EXAMPLES OF LEA PROGRAM OBJECTIVES STATED IN PERFORMANCE TERMS-----PLACEMENT SITES--FOR DISCUSSION ONLY

I. At the end of the project, the _____ school system will have developed a comprehensive system for identifying potential early school leavers. A comprehensive system will:

- identify the criteria used for identifying potential early school leavers.
- identify grade level(s) at which identification is most appropriate.
- name the positions of persons providing the identification.
- describe the forms/questionnaires used in the identification process.
- indicate the persons to whom identification is made known.
- demonstrate the predictive validity of the identification process, making revisions if necessary.
- outline a plan for remedial/preventive action relative to the identified individuals.
- describe the provisions for incorporating the above elements into the total services of the school to its public.

II. At the end of the project, the _____ school system will have developed a method for following up and accounting for all students who exited the school system in 1973-74 from grades 7-12 in each of the following categories:

- those who graduated from the 12th grade.
- those who transferred to another school system.
- those who left school during the academic year without plans for completing the normal requirements for their grade.
- those who did not re-register in September after completing a previous academic year.

In developing the methods, the following will be accomplished:

- identify in writing the purposes for collecting the follow-up information.
- develop, pilot test, and revise questionnaires for gathering appropriate information regarding all exiting students.
- devise administrative procedures by which students who dropout are referred, with a minimum of delay, to the placement coordinator or other appropriate person or agency for further action.
- demonstrate and document a systematic plan for contacting/accounting for each group of exiting students.
- implement a means of compiling and reporting results of the follow-up study.

APPENDIX E continued

--outline a suggested plan for making a suitable follow-up system a permanent part of the school system services.

III. At the end of the project, the _____ school system will have determined the state, community, and area resources capable of providing employment opportunities for school leavers (graduates and drop-outs). In accomplishing this objective, the school system will:

- identify part-time and full-time employment opportunities.
- demonstrate and document a systematic procedure for identifying and contacting prospective employers.
- identify the kinds of information needed from businesses and agencies regarding employment prospects for students in various circumstances, such as drop-outs, potential drop-outs, handicapped persons, graduates, etc.
- develop, evaluate, and revise as necessary appropriate forms for recording information from prospective employers.
- implement a system for compiling, retrieving, and updating employment information.

IV. At the end of the project, the _____ school system will have identified effective procedures for meshing the interests and aptitudes of all exiting students with the opportunities available in the community, area, and state. In accomplishing this objective, the school system will:

- describe the process used to identify students' interests and aptitudes.
- describe the methods by which information regarding community and area resources, i.e. available jobs, occupational training programs, etc., is made available to exiting students.
- describe the pre-employment preparation given to students.
- demonstrate effective means by which interviews between job seekers and prospective employers are achieved.
- document any special arrangements made with employers to develop new jobs or to modify existing job titles to meet the needs of individual exiting students.
- outline suggested plans for a permanent office in the school system responsible for placement of exiting students.

APPENDIX F

ITEMS SUBMITTED BY LEA PERSONNEL FOR CONSIDERATION AT PARTICIPANTS CONFERENCE HELD IN JANUARY 1974

FROM EXPLORATION COMPONENT

1. Do you anticipate that career education will facilitate the teaching of conventional academic subjects in the classroom? If so, how?
2. What are the advantages of incorporating the career education clusters into the regular curriculum concepts rather than teaching a specific cluster as an isolated concept?
3. Is it necessary to try to expose each student to all the career clusters at two or three year intervals? If so, why the repetition?
4. As viewed from the State Department of Education, what are the objectives of career education and what are the anticipated beneficial outcomes?
5. Is it anticipated that the present program might be extended to the junior and senior college levels?
6. Has adequate preparation been given to the problem of preparing the classroom teacher to do an acceptable job of teaching about the various career ideas?
7. What research techniques can be used to evaluate program rather than participant?
8. What techniques appear to be most promising in securing industrial and business assistance and support in career education?
9. Placement of students under 16 in work experiences.
10. Provisions for substitute teachers while on field trips.
11. Students who are non-readers or who are reading far below grade level experience difficulty in reading materials on career exploration.
12. Grouping for on-job observation in making field trips.
13. Implementation of resource center for best results for use of exploration students.
14. Selection of resource people who are willing, capable, and able to visit exploration classes.
15. Proper sources and selection of exploration materials to be used in project.
16. In-service training for teachers in order to prepare them for proper use of methods and techniques in teaching exploration of careers.
17. Broader use for determining and selecting career exploration materials.
18. Means of communication between career exploration school and employers of students in work experiences.
19. C.M.I. test materials too extensive for low-level readers.
20. Feasibility of organizing a Career Exploration Club.
21. It would be helpful to persons making selections of commercially prepared materials on career education if exhibits from various vendors or companies could be available at the conference in Tuscaloosa.
22. Exhibits of teacher prepared materials such as games, projects, etc., would be beneficial.
23. Discussions of problems encountered with planning trips and

APPENDIX F continued

- explaining the program to community places of employment.
24. When will the results from the pre-evaluation testing be available to the Decatur City Schools?
 25. Should the amount of time spent on the career program for the month be included in the monthly reports?
 26. Should copies of questionnaires and objectives (behavioral) accompany the monthly report?
 27. In what ways can the classes of social studies be related to on-the-job work?
 28. How valid is the Crites Vocational Maturity Test?
 29. Is it important to get parents aware of and involved in career education? If so, how?
 30. Is there anyway to determine or hypothesize on the number of career experiences these students would need to produce a significant difference in scores on the Crites Test?
 31. Has the Crites Test been used as an evaluative instrument in any other experiment (to your knowledge)?
 32. In evaluating an activity by using a test as the instrument, how can we construct it so that it will interest the students enough to find out what they really learned by participating in the activity?
 33. How can we, as classroom teachers, cover our standard curriculum adequately and spend this much time on the career education project?
 34. How can we carry on next year with the project when field-trip finances are cut -- realizing that this is the most effective way of carrying out our goals?
 35. How can we overcome the fact that many places turn groups of children away?

FROM PLACEMENT COMPONENT

36. What can be done for students who have dropped out of school and have or appear to have no motivation for anything?
37. When is the best time for an advisory committee to meet?
38. What should be done for a student who has occupational or training aspirations above his ability level?
39. What can a placement officer do for a student who has the interest, aptitude and ability for a job and needs placement, but none in his field of interest is available?
40. How can students be better motivated to take "tests," i.e. aptitude, interest, achievement tests?
41. What follow-up procedures are most effective?
42. How can part-time job opportunities be cultivated for 14 and 15 year olds in view of the competition for these jobs from older students?
43. It would be very interesting to deal with every objective outlined for the placement sites and discuss the processes each site is pursuing in accomplishing these objectives.
44. I believe simply sharing ideas will help spark imaginations and this is what is needed.
45. Ways to establish realistic goals for job placement offices.
46. Steps for implementing a job placement service in local high school,

APPENDIX F continued

since in many instances high school students do not have marketable skills, and are, therefore, limited in the type of work they can select from.

47. Some ideas of records that should be available at placement service center, such as:

- Cumulative record
- Aptitude test record
- Vocational interests
- Achievement results
- Student's goals (Do they want jobs near a college so that they might enhance their opportunities or retrain or re-educate at some future point in time?)

48. Ideas and methods for use in evaluating the CE-EP Project.
49. What methods can be used to inform some school personnel and segments of the community to the point that they are willing to support the program?
50. How can we provide a testing program with a qualified administrator?.
51. How can we communicate with educational, social, and economically deprived people that need help?

APPENDIX G

EFFECTIVE PROCEDURES AND METHODS IDENTIFIED BY EXPLORATION SITES

PROCEDURES THAT WORKED WELL IN STIMULATING STUDENT INTEREST IN EXPLORING CAREERS.

SYSTEM I

1. Worksite Observation - fieldtrips to industries relative to student ability and interest.
2. Resource People - bringing in people within the community who are involved with various careers.
3. Filmstrips - ex. "World of Work"
4. On-the-job training - NYC and workstudy programs
5. Resource Center - use of tool technology

SYSTEM II

1. Teacher involvement in developing and implementing careers as an integral part of their teaching-learning process.
2. Orientation of students to the necessity for exploring career possibilities as they relate to their interest aptitudes and abilities.
3. The involvement of students in the preparation of career exploration activities and/or materials.
4. The competitive aspect of participating in a controlled experimental format utilizing four distance teacher-learning procedures allowed students to exhibit enthusiasm and generate a group cohesiveness necessary to stimulate students to maximum performance.
5. The utilization of resource personnel proved to be an excellent stimulus.
6. Various multi-media presentations served as a means of meeting individual learning styles of students.
7. The evaluation process disseminated to students served as a stimulus for optimum performance.

SYSTEM III

1. C.M.I. (Crites Maturity Inventory)
2. Filmstrips
3. Kuder
4. Personal conferences
5. Individual folder
6. Game (Lemon Drop)

SYSTEM IV

1. Career Fairs - Activity centers set up by local community members, businesses, agencies, etc. providing "hands-on" experiences and occupational information.
2. Occupational Exploration at Local Vocational-Technical Schools - Students chose occupational areas to visit for "hands-on" experiences

APPENDIX G continued

and information relative to career choices.

3. Career Emphasis Weeks - Counselor-coordinated; each teacher invites two persons representative of types of employment based on that teacher's subject area (e.g. math - an architect); students choose speakers they wish to hear; posters exhibited are related to subject areas taught.

SYSTEM V

1. Filmstrips
2. Resource people
3. Tapes
4. Discussion (group)
5. Research

PROCEDURES THAT WORKED WELL IN MESHING STUDENT INTEREST AND EXPLORATION RESOURCES.

SYSTEM I

1. A tour of plant by teachers for orientation purposes. The teacher is then able to carry back information on the students' level and at the same time assist in the tour.
2. Games using occupations
3. Sampling courses that are offered in junior high

SYSTEM II

The format used in the career exploration served as a very efficient communicator of the role of education in the career preparation process. The utilization of a multi-learning style approach allowed students with varying learning styles to participate in teaching-learning activities consistent with their unique learning style.

SYSTEM III

1. Field Trips - Bus tours, mini-trips (parents taking small groups), to the Junior College, Vocational High School, industries, and businesses
2. Resource Persons - Speakers, on-site speakers

SYSTEM IV

Student Initiated Activities - Students relate curriculum area to their specific interests or hobbies, e.g. motorbikes to a social studies unit in transportation.

SYSTEM V

1. Resource people, field trips, tapes, filmstrips, and other

APPENDIX G continued

- experiences were provided after determining student interests.
2. Eighth grade girls were allowed to spend a day in the job experience of their choice after having explored the different careers available in the community.

PROCEDURES THAT WORKED WELL IN IMPLEMENTING METHODS OF EXPLORATION.

SYSTEM I

None

SYSTEM II

Basically, procedures outlined under the two previous items will answer this item.

SYSTEM III

1. Hands-on-experiences - on-site and simulated
2. Role playing
3. Interest centers within classroom

SYSTEM IV

Encouraging Counselor Initiative - Once the counselor in an individual school is motivated to implement exploration, individual teacher abilities and strengths are developed in the process of implementation. For example, such ventures as a Career Fair or a Career Emphasis Month would necessarily need to be coordinated by a counselor or someone who doesn't have classroom responsibilities.

SYSTEM V

1. Counselor as a resource person (making materials available, group discussions, etc.)
2. Using the library for research in the various careers
3. Students invited parents to talk to their class about individual jobs.
4. Students interviewing different people about their jobs and sharing the information with each other.

PROCEDURES THAT WORKED WELL IN MESHING EXPLORATORY ACTIVITY WITH THE ON-GOING CURRICULUM.

SYSTEM I

1. Teachers weekly conferences
2. Listing of performance objectives prior to the 6-weeks unit
3. Have a curriculum conference every 6 weeks
4. Use of resource center according to a definite schedule for teachers

APPENDIX G continued

and students

5. Student conferences with counselor or teachers to assess abilities, interests, training, background, and placement needs.

SYSTEM II

In philosophy and in practical application, career education as a concept has been totally integrated into the entire teaching-learning process utilizing a multi-cyclic approach. This was accomplished by complimenting the present scope-and-sequence organization with career concepts directly related to the material under consideration. Utilizing a cyclic approach in which career related material representing the career clusters and coordinating with the D.O.T. are completed each two years, the system is able to present an on-going sequential career involvement process including all students and all teachers. This approach to integrating career education into the total teaching-learning process is enhanced through a concentrated career exploration phase at the junior high level.

SYSTEM III

1. Exploration of special interests as identified by Kuder interest categories
2. Exploration of careers in related arts classes - music (chorus and band), Art, Industrial Arts, Home Arts
3. Physical education related careers
4. Library resources
5. Counselors

SYSTEM IV

1. Resource Persons - Persons employed in jobs based on or related to topic being studied.
2. Field Trips - Visits to job sites related to topics being studied.
3. Audio-Visual Aids - Using appropriate filmstrips, tapes, etc. related to topic or concept being studied (Such a procedure would necessitate a media or career resource center assessible to teachers.)

SYSTEM V

1. Writing career activities into the existing units
2. Resource people, field trips, and other activities were planned to coincide with units that were being taught.
3. Teachers made information available from career education courses they were involved in during the school year.

PROCEDURES THAT WORKED WELL IN SEQUENCING EXPLORATION EXPERIENCES IN THE CURRICULUM.

APPENDIX G continued

SYSTEM I

1. Teachers follow 6-week programs which intermesh curriculum with career education concepts.
2. Complete records of every academic year.
3. Listing mistakes and errors so that a minimum of repeating these mistakes will take place.

SYSTEM II

Sequencing career exploration in the curriculum is explained in previous item.

SYSTEM III

1. Curriculum Development - Unit development, interdisciplinary possibilities (Careers - an on-going emphasis in total curriculum development).
2. Spin Off - K-12 emphasis on "World of Work".

SYSTEM IV

None

SYSTEM V

1. Cooperation of administrative staff.
2. In-service committee composed of teachers from all levels developing a sequential program in career education.
3. A mini-course was made available in career education.

PROCEDURES THAT WORKED WELL IN IDENTIFYING AND CONTACTING EXPLORATION RESOURCES IN THE COMMUNITY.

SYSTEM I

1. Personal contact with key persons.
2. Involvement of these persons with the entire program.
3. Faculty listing of all industries and work sites that might provide occupations to our particular students in the future.
4. Phone directory listing of business in area.
5. Student interests.

SYSTEM II

The project was of the opinion that the face-to-face contact of educators with business and industrial leaders would serve as the most effective means of establishing the lines of communication that would serve to bridge the gulf between the agencies dedicated to preparation and the agencies involved in ultimate placement. Based on

APPENDIX G continued

this belief, the project utilized the following approach to develop communication channels between educational agencies and business and industrial establishments:

Instructional and administrative personnel selected representative business, industrial and/or civic agencies from the immediate area to contact and establish channels of communication with the appropriate representatives. The initial contact was designed to open doors and determine the potential involvement of the agency with the career education program. The initial visit also scheduled follow-up dates for more in-depth programs.

The second contact with business, industrial, and civic representatives was made by specialists and served to fully acquaint the appropriate representative with career education as an integral part of the total education process and as an important component in the student's repertoire of knowledges necessary for adequate employment.

The third contact with business, industrial, and civic leaders was either to develop materials, involve representatives as resource personnel, or identify a site for visitation.

SYSTEM III

1. Questionnaires - Parents, businesses and resource persons.
2. Card Files
3. Telephone Calls
4. Civic Organizations
5. Vocational Resources - Junior College, Director of Vocational Education (High School).
6. Vocational Counselor

SYSTEM IV

Teacher tours - During career education orientation workshops, teachers toured local businesses and industries to become acquainted not with the business operation but with the types of jobs available, requirements, etc. These tours (of which approximately 40 local businesses/industries were involved) provided the initiative for individual teachers to utilize these business areas for student career exploration.

SYSTEM V

1. Counselor
2. Parents
3. PTA
4. Employment Office
5. Students
6. Clubs (civic)

APPENDIX G continued

PROCEDURES THAT WORKED WELL IN DETERMINING METHODS TO BE USED BY STUDENTS AND TEACHERS IN EXPLORATION.

SYSTEM I

1. Discussion and listing of jobs students were interested in.
2. Discussion of jobs and sites to be visited, including safety precautions, requirements of job, expected rate of pay, etc.
3. Actual visits to these job sites.
4. In-depth follow-up study of job.

SYSTEM II

This item is covered in first and second items.

SYSTEM III

1. Incorporated into mainstream of academic program.
2. Academic team involvement.
3. Open space utilization - Large group, small group, individual and peer tutoring.

SYSTEM IV

Teachers From Outside School Systems Used as Resource Consultants - Teachers representing each grade K-6, and major subject areas of grades 7 and 8 who had been identified by the state career education staff as facilitators of career education, served as consultants to local teachers during a one-day workshop. Using the teacher-consultant proved to be most effective in generating initiative and creative thought for determining methods for career exploration.

SYSTEM V

1. Survey of student interests
2. Survey of available materials.

APPENDIX H

EFFECTIVE PROCEDURES AND METHODS IDENTIFIED BY PLACEMENT SITES PROCEDURES THAT WORKED WELL IN IDENTIFYING STUDENT PLACEMENT INTERESTS.

SYSTEM A

Our procedures in Coffee County were to develop an instrument that could be used by the classroom teacher to identify the potential dropout. This instrument identified the student with social, economic, teacher-pupil, poor grades, emotional and other problems.

We developed an application for the student to apply for the type of position or work that he or she was interested in securing. This application was reviewed by three classroom teachers, counselor, principal, and placement coordinator (all these people signed the application of recommendation for part-time work).

Following the above method, the placement coordinator sought to place the student where best suited.

SYSTEM B

1. Armed Services Vocational Aptitude Battery - Scores were interpreted and discussed, together with preferences of individual students, by counselors and military personnel.
2. Counseling with individual students.
3. Interest inventories.
4. One counselor was sent to the University of Alabama to become qualified in administering and interpreting the GATB test.

SYSTEM C

To identify student interests we held interviews with each individual student. During the month of November our guidance counselors interviewed our seniors, asking what their plans were toward their career after high school. This information was recorded and used in seeking employment resources. Again, in April, the seniors were interviewed by the placement coordinator to determine any change of plans or interests. It was found that approximately 3 percent of the students had made a change of plans.

SYSTEM D

1. In small groups, have the students identify their own interests. Record these on data cards.
2. Teachers surveyed students for career interests.
3. Counselors identified students with particular career interests.
4. Vocational counselors assisted in identification of students with special interests.
5. Student Career Interest Survey, system-wide.
6. Administer vocational aptitude tests and/or interest inventories.

APPENDIX H continued

SYSTEM E

1. General orientations to classroom-size groups of students (early in project).
2. Written surveys completed by students (January).
3. College and Career Day - Student attended conference with representative of business and post-secondary institutions (March).
4. Individual conferences with coordinator, counselors, or teacher. Information recorded on individual's card using placement file for each student.

PROCEDURES THAT WORKED WELL IN IDENTIFYING EMPLOYMENT SOURCES.

SYSTEM A

In identifying employment sources, we used the telephone directories. We also made personal contact with personnel directors of the various industries and explained the program, its objectives, purposes, and the need, and in most instances our program was accepted.

SYSTEM B

1. Personal contact with area employers regarding job opportunities.
2. State Employment Service Office - studying some of the Federal and State work programs available to the youth of our community. Job listings were secured from the State Employment Service Office.
3. Correspondence with big business concerns regarding opportunities in this area and also national concerns having job training programs.
4. Correspondence with federal civilian personnel offices at Eglin AFB and Fort Rucker regarding job opportunities for civilians.
5. Correspondence with trade unions that conduct apprenticeship programs for young adults.
6. Correspondence with Civil Service in Atlanta regarding job announcements.

SYSTEM C

Employment resources were identified by use of phone book and through personal contact with local business people.

Student interests were used to determine the kinds of employment to seek.

SYSTEM D

1. Personal contact with major employers.
2. Community occupational survey of all others.
3. Maintain contact with Y.O.C., NYC, CETA, NABS for summer employment slots.
4. Cooperate with local Chamber of Commerce in a comprehensive

APPENDIX H continued

industrial survey.

SYSTEM E

1. Person to person visits by coordinator to business and industry. (Continuous)
2. Assistance from Vocational Cooperative Coordinators and other teachers for placement referrals.
3. State Employment Service official and unofficial information in addition to referrals for students who become "clients" of the State Employment Service.
4. Private employment agency contacted school and was allowed to talk to students through coordinator and business classes.

PROCEDURES THAT WORKED WELL IN IDENTIFYING AND MEETING NEEDS OF POTENTIAL DROPOUTS.

SYSTEM A

1. Placing the potential dropouts on the job, talking with parents, and giving credit for working on a job training program. (Credits and a grade counting toward high school graduation)
2. Contacting their friends and giving the friend credit for the placement.
3. Publications in the local newspaper with his or her picture on the job.

SYSTEM B

To identify the highly potential dropout students, an accurate index of individual student dropout potential was compiled. The index considers such variables as:

- (1) low or failing grades
- (2) high absenteeism
- (3) non-participation in school activities
- (4) active antagonism to teachers and principals
- (5) low reading ability
- (6) fewer than two natural parents in the home
- (7) record of delinquency
- (8) brothers and/or sisters who have dropped out.

From this list of variables a list of highly probably dropouts was developed. This list was reviewed by principals, counselors, and teachers.

1. Counseling sessions were scheduled to assist students in school related problems. Sessions were arranged by referrals from teachers and/or principals.
2. Attendance Officer's primary role is to help students overcome

APPENDIX H continued

- obstacles which prevent them from attending school. This is accomplished through home visits or parental conferences.
3. Placing potential dropout students in special programs designed to meet the student's individual needs. Example: Title I Compensatory Education, Title I Special Education, State Special Education Classes, and tutoring (one student tutoring another).
 4. Providing part-time employment - NYC Program and other work stations in the community.

SYSTEM C

Teachers were used to identify potential dropouts. When a teacher felt that a student was a potential dropout, they turned the student's name into the principal or guidance counselor. The guidance counselor then called the student in to determine how he or she might be helped. If the counselor felt there was a need, he called the placement coordinator to meet with the student and offer his advice.

SYSTEM D

1. Pupil Personnel Division is concerned and actively involved in services for potential dropouts.
2. They cooperated with me in identifying characteristics of potential dropouts.

SYSTEM E

Teacher, counselor and principal observations with a referral to placement coordinator to prevent dropouts. After dropout, a phone or letter contact is used to reestablish contact and offer services.

We did not (but suggested for future purposes) counsel with all dropouts before they depart from the school and offer services at that time.

PROCEDURES THAT WORKED WELL IN MESHING STUDENT EMPLOYMENT INTERESTS AND EMPLOYMENT OPPORTUNITIES.

SYSTEM A

1. Public relations with city fathers and other elected officials.
2. Involving community resource persons to come to the school in the clothes which they must wear to the job.
3. Inviting personnel directors to come to the school and talk about the job descriptions.

SYSTEM B

1. Aptitude testing and individual counseling - Counselors scheduled

APPENDIX H continued

conferences with students informing them of jobs available.

SYSTEM C

Because of the limited opportunities in our area, there was some difficulty in finding employment that meshed with student interest.

The procedure we used was to take the interest expressed by the student and locate employment of this type or something closely related, if available. It was necessary to recommend that some students seek employment outside of the local area.

SYSTEM D

1. Gather all available data on students.
2. Match with job information available.
3. Interview and screen students.
4. Arrange for interviews.

SYSTEM E

Our system used Kuder Interest Inventory, student desires verbalized through survey, Armed Services Vocational Aptitude Battery for all students. These were all placed in student's file folder and used for counseling. Where the need existed, we used a Geist Picture Interest Inventory for less verbal students. For those (30) who were identified as undecided about a job, but with no plans for further education, the State Employment Service administered the GATB. Identified student interests were recorded on a follow-up card and used as a file for job referral.

PROCEDURES THAT WORKED WELL IN IMPROVING POST-SECONDARY ARTICULATION.

SYSTEM A

1. Inform the students of the opportunities that are available on the college level.
2. Supplying students with sample letters of application for college.
3. Assist students in securing college loans, grants, scholarships, etc.

SYSTEM B

1. Career Day activities planned for the seniors of Covington County Schools. Twenty-four colleges were represented, three armed service branches were represented.
2. Health Career Fair was held in Covington County, the purpose of which was to help students become acquainted with health career jobs in hospitals, public health work and health related activities.
3. Counseling sessions were held regarding (a) financial assistance to college-bound students, (b) college costs, admission and matriculation,

APPENDIX H continued

(c) realistic job information regarding student employment and on-the-job training programs, and (d) apprenticeship programs available to graduating seniors. Resource people were called in to talk to students regarding their post-secondary plans.

SYSTEM C

During the school year, all of our seniors were involved in at least two field trips - one to a technical college, and one to a junior college.

All seniors who planned to enter college were asked to make early applications in order to be prepared.

SYSTEM D

1. General meeting was called by Director of Career/Vocational Education. Representatives of all area post-secondary institutions were present. Plans were discussed for more and better ways of articulation between Mobile County Public Schools and all post-secondary institutions.
2. Placement Coordinator has identified a contact person at each institution to coordinate further efforts.
3. Principals and counselors will tour post-secondary facilities.
4. Teachers of like subjects from high schools and post-secondary institutions will develop together more sequence of instructional effort.

SYSTEM E

Established a counselor browsing area of college and technical school (public and private) bulletins. Scheduled individual conferences as needed. English teacher of college prep English had a unit on interpreting college catalogues. This was successful to the point that we are encouraging a spreading of the practice to all 12th grade classes and expanding to include vocational-technical school bulletins.

College and Career Day involved bringing school representatives to our campus. Individual conferences with representatives of the local post-secondary vocational schools were arranged by the counselors.

PROCEDURES THAT WORKED WELL IN WORKING WITH STATE EMPLOYMENT SERVICE.

SYSTEM A

1. Publications in local news.
2. Personal contact with each member of the board and explain the program.

APPENDIX H continued

3. Giving the employment service credit for the placement.

SYSTEM B

With the assistance of the State Employment Service representatives, we contacted and counseled with dropout students. We secured from this office resource material to aid teachers in teaching pre-employment preparation. We discussed with this agency a dropout referral procedure in which a student was referred to them immediately after dropping out of school. We discussed Federal and State programs for disadvantaged youth. We learned ways to use the job-bank program for School Placement Center.

SYSTEM C

Personal contact was made with the State Employment Office serving Geneva County, and we offered our cooperation and assistance.

When we contacted them about jobs for dropouts or seniors, they were unable to help. I feel this was due to the lack of employment opportunities in our area.

The employment office was very helpful in our efforts to obtain the GATB for our counselors to use.

SYSTEM D

1. Got GATB information.
2. Used as a referral agency.

SYSTEM E

Identify a person at the State Employment Service that the coordinator can identify with. Get the local director to appoint him to the Career Education Advisory Committee as early as possible. Cultivate that person through the advisory committee. Ask for anything you want from the employment service and you will get some help.

PROCEDURES THAT WORKED WELL IN INFORMING AND INVOLVING SCHOOL BOARD MEMBERS, SUPERINTENDENTS, PRINCIPALS, ETC.

SYSTEM A

1. Personal contact with each board member and explain the program.
2. Invite each member to the school or schools and let each person see the results of the work.
3. Conferences, faculty meetings, PTA group meetings, etc.

SYSTEM B

APPENDIX H continued

SYSTEM C

Any time a student was involved in placement activities, the principal was consulted about the situation and when possible the principal was asked to meet with the student.

The superintendent was involved primarily as a consultant for project activities and he kept the board members informed.

SYSTEM D

I worked directly with principals and reported weekly to director of career and vocational education.

SYSTEM E

Coordinator had open access to the Principal, Assistant Superintendent, and Superintendent at any time. Individual conferences were scheduled as needed. One presentation was made to the local school board by the coordinator by way of identification of placement service and request for further support.

PROCEDURES THAT WORKED WELL IN USING ADVISORY COUNCILS.

SYSTEM A

1. Accept their planning and try to keep them involved.
2. Using the most influential teacher in the council to serve as chairman.
3. Don't load them down with paper work.

SYSTEM B

SYSTEM C

SYSTEM D

1. They give input as to jobs, job training sites and trends in employment in periodic meetings with them.
2. Involved these people in our project schools as resource people. This helped generate interest in the program.
3. Opened doors to jobs and information potential which otherwise would have been closed to us.
4. Disseminate information for us.

SYSTEM E

Have the superintendent appoint, using an official letter, after the

APPENDIX H continued

coordinator identifies and contacts the desired people. Use a good balance of industry, business, racial composition, male and female and label of jobs on the committee.

An organizational meeting was scheduled and at the committee's suggestion, meetings were scheduled for every two weeks at the board office. The coordinator presented orientation for the committee as to its responsibilities, project objectives, and anticipated problems which became the basis of future discussion. Meetings were held to one hour. Minutes of the previous meetings were mailed out just prior to the next meeting for the purpose of bringing members up to date and remind them of the next meeting. Involved coordinator, counselors and business representatives.

PROCEDURES THAT WORKED WELL IN BUILDING PUBLIC RELATIONS.

SYSTEM A

1. Children will tell the help that they received. News media.
Personal contact.
2. Personal contact with elected officials.

SYSTEM B

Public relations are the most important factor in the success of any school related program:

- a. Chamber of Commerce to be used as a resource agency.
- b. Soliciting the help of radio, newspapers, and any media to help build better public relations.
- c. Soliciting industry and business to help promote good public relations through making the public aware of placement activities. This can be done by using their mailing lists, by creating job opportunities, and informing the school of opportunities for students.
- d. County wide inter-agency council... here we learned what each agency was doing and how each agency can help the schools.
- e. Civic organizations..member participation in school placement opportunities, urging business men to give jobs to students.

SYSTEM C

SYSTEM D

1. Presentations to civic and professional groups.
2. Dissemination of information through advisory councils.
3. Close involvement of Chamber of Commerce.
4. Media usage when available.
5. Occupational surveys.

APPENDIX H continued

6. Follow-up telephone calls to homes of students. Parents were impressed that the school system "cared."

SYSTEM E

Working through advisory committees. Individual contacts with parents of dropouts and the dropouts. This process revealed a tremendous P.R. potential because parents like to find that the school is interested even though the student left school. This procedure applies to a lesser extent to graduates.

PROCEDURES THAT WORKED WELL IN CONDUCTING FOLLOW-UP STUDIES.

SYSTEM A

1. Good record keeping.
2. Keep contact with all involved persons-students, teachers, etc.
3. Statements and letters from involved persons.

SYSTEM B

The Covington County schools are using a follow-up questionnaire formulated by the State. This form will be sent to fifty dropout students and ninety seniors. Results will be tabulated and submitted with project narrative on August 26, 1974. All of these contacts were made personally or by telephone.

SYSTEM C

Since our follow-up is not complete, we must wait to see how well our procedures worked.

We mailed out the follow-up questionnaire, allowed ten days for return, and then began contacting those who had failed to return the forms.

SYSTEM D

Telephone follow-up.

SYSTEM E

Mailed out letters and post paid return cards were 30 percent effective. Follow-up phone calls by the coordinator and a clerical assistant should increase the contact up to 80 percent. More emphasis with the student while in school on the follow-up procedure and purpose would improve results.

Students in follow-up who could not be reached by phone were mailed a letter requesting them to contact the coordinator. This was effective in 50 percent of that group not otherwise reached.

APPENDIX I
FOLLOW-UP QUESTIONNAIRE

Name _____ Sex: M F Date _____

Permanent Address _____ City _____

Telephone _____ School System _____

FOR OFFICE USE ONLY

Not Able to Reach for Follow-Up _____

Name of Person Completing Form _____

SECTION I - TO BE COMPLETED BY (FOR) EVERYONE

1. Indicate highest grade completed. ___ grade
2. Married? Yes ___ No ___
3. Employed? Yes ___ No ___ Full-time active Military Service ___
4. If not employed, available for and wanting employment? Yes ___
No. _____

(a) If not employed, check reason

- Health
- Attending school (Name of School) _____
- Working at home
- On vacation
- Other (Describe) _____

5. Planning to enroll for further training or education? Yes ___
No ___ Undecided ___

(a) If yes, has official acceptance by a school or into an apprenticeship program been received? Yes ___ No ___

(b) If accepted, check type of school or program

- Correspondence courses
- State Technical College or Trade School
- State Junior College
- Four-year college
- Other (Describe) _____
- Apprenticeship (Indicate job area) _____
- Private institution, e.g. commercial college, private nursing course, etc. _____

6. Was instruction received in school concerning how to find jobs, such as how to complete a job application, how to dress for a job interview, etc.? Yes ___ No ___

APPENDIX I continued

- (a) If yes, was this information
Very helpful ___ Somewhat helpful ___ Not very
helpful ___
- (b) If yes, who gave out the information?
Teacher ___ Counselor ___ Placement Coordinator ___
- (c) If yes, how could it be improved for the next classes?

SECTION II - TO BE COMPLETED BY THOSE WHO ARE WORKING

7. If working, check one of the following
___ Full-time job for summer only ___ Part-time job for summer only
___ Other full-time job ___ Other part-time job
8. Name of firm or employer _____
9. Job title _____ Date began job _____
10. Person(s) or agencies which helped in finding a job (Check one or more)
___ School placement coordinator ___ School counselor
___ Vocational teacher or other teacher ___ School principal
___ Parent or other family member ___ State Employment Service
___ Friend ___ Self-employed
___ Private employment agency
___ Want ad or other "Help Wanted" notice
___ Other (Describe) _____
11. Is your job (Check one or more)
___ the kind of work you really wanted?
___ the only job that seemed to be available?
___ the type of work you would like to continue and advance further in?
___ mostly one for earning some money and getting some work experience?
12. Had to leave home area in order to find this job? Yes ___ No ___
13. Took vocational course in high school? Yes ___ No ___
(a) If yes, check degree of relation between present job and vocational course
___ Directly or closely related
___ Not related or very little

APPENDIX I continued

(b) Type of course _____

14. Planning to change jobs?

No
 Soon

Sometime in the future
 Undecided