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AUTHOR Banta, Trudy W.; Boser, Judith A.
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ABSTRACT

Data from individual final project reports and evaluation reports prepared by external evaluators were compiled to evaluate the 17 local projects that were conducted in Tennessee during 1980-81 under the provisions of the Career Education Incentive Act. Included among those areas examined during the evaluation were the following: project activities and program components, advisory council composition and functioning, groups cooperating with the school system in implementing or maintaining career education efforts, needs assessment activities, staff participation and areas addressed in inservice, extent of participation in infusing career education into curricular areas, subject areas in which such infusion occurred, teachers' use of career education infusion techniques, project accomplishments and publicity efforts, access to career education materials, and funding. After evaluating the 17 projects in terms of the 13 objectives specified in the 1980-81 Tennessee state plan for career education (most of which addressed needs for staff training and provision of instructional materials), researchers determined that nearly all the criterion-referenced objectives specified in the state plan were achieved. In only two areas did achievements fall somewhat below predicted levels. These areas were utilization of advisory councils and reduction of bias/stereotyping. (The 1979-1980 evaluation report is available separately--see note.) (MN)

EVALUATION OF TENNESSEE'S STATE PLAN FOR CAREER EDUCATION 1980-81

Trudy W. Banta
Judith A. Boser

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Bureau of Educational Research and Service
University of Tennessee, Knoxville
2046 Terrace Avenue
Knoxville, Tennessee 37996

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EVALUATION OF TENNESSEE'S STATE PLAN FOR CAREER EDUCATION

1980-81

Identification of Projects

During 1980-81 seventeen local projects were conducted in Tennessee under the provisions of the Career Education Incentive Act (PL95-207). The participating school systems were:

1. Anderson County
2. Claiborne County
3. Cumberland County
4. Metropolitan Nashville/Davidson County
5. Greene County
6. Greeneville City
7. Humboldt City
8. Jackson County
9. Milan City
10. Oak Ridge City
11. Overton County
12. Putnam County
13. Rhea County
14. Scott County
15. South Carroll Special School District
16. Trenton
17. Wilson County/Lebanon

Thirteen of the local projects received continuation funding, having been funded initially for 1979-80, while four projects (3, 5, 8, and 9) received financial support for the first time.

Sources of Evaluation Data

In October 1980, at the first State-wide meeting of local project directors, the Coordinator for Career Education in Tennessee scheduled a presentation by evaluators from the Bureau of Educational Research and Service at the University of Tennessee, Knoxville. The evaluators outlined a design for evaluation of local projects which would permit generalizations across projects and thus could be used to provide a State-wide evaluation of the career education program in Tennessee. Following the presentation the State Coordinator suggested that the 17 project directors enter into individual contracts with the Bureau of Educational Research and Service (BERS) so that both the local projects and the State program could be evaluated simultaneously.

By October most project directors already had budgeted the State funds allocated for their programs, and not all were able to shift funds to provide for an external evaluation. Eleven project directors did direct $100 to $500 into the evaluation effort, however, and the BERS evaluators began to work with these directors in November to design appropriate individual evaluations.

The report which follows was based on two sources of information: the final project report which the State Coordinator required of all project directors, and evaluation reports prepared by the BERS evaluators. By December 1, 1981 ten of the seventeen project directors had submitted the final project report, and eleven evaluation reports had been

prepared by the external evaluators. The final project report consisted of a structured checklist, a narrative section, and a financial report. The evaluators designed a Career Education Activities Survey form which included in summary form much of the information sought in the State Coordinator's final report checklist. Thus the two sources of information yielded data on all but one (Project 16) of the local projects funded in 1980-81. Since a final report was submitted for Project 16 in 1979-80, the evaluators were able to obtain some of the information needed for the present report from all seventeen 1980-81 local projects.

Program Organization and Support

Six of the local career education projects in Tennessee were directed by a part- or full-time career education coordinator (see Table 1). Fifteen projects utilized local advisory councils, with the number of members ranging from 7 to 27 and averaging 16 (see Tables 1 and 2). While one advisory council was composed solely of parents (Project 11), the others generally included combinations of representatives of business and industry, parents, and educators (11 projects each); labor (7 projects); and other groups (9 projects). It was not possible to determine the group composition of the advisory councils for three projects (6, 15, and 16).

Advisory councils for 12 of the 17 projects (71%) met one or more times during 1980-81, with an average of two meetings during the year for the 12 projects which reported this information. One project (15) reported that the advisory council had not met, while another (17) reported that five meetings had taken place. Only two projects (3 and 5), both of which were being funded for the first time, did not report that a local advisory council had been formed.

Fourteen projects reported involvement of local organizations or individuals in implementing or maintaining their career education efforts in ways such as serving as resources for classroom activities or field trips, or providing hands-on job exploration experiences (see Table 3). Civic groups, government agencies, and business/industry each were utilized by ten projects, professional organizations by seven, and educational institutions by three projects. The number of groups or organizations involved in a project ranged from a high of 23 (Project 4) to a low of 6 (Projects 6 and 14). In all, a total of 147 groups, organizations, or institutions were listed by ten projects. Four projects (8, 10, 11, 13) indicated that they had involved various community resources but did not provide numbers of groups so involved, and for three projects (3, 5, 16) no community involvement was reported.

Needs Assessments

All projects for which final reporting information was available had conducted needs assessments prior to 1980-81 which served as the bases for their programs. Nine of the projects conducted needs surveys during 1980-81 (see Table 4).

Teachers and administrators were the target groups most frequently used (by eight of nine projects) for needs assessments. One project (15) surveyed students exclusively. Six projects sought input from counselors, four from parents.

Staff Development and Classroom Infusion

Each of the 16 projects for which either a final checklist or an external evaluation report was available included information showing that inservice training activities had been conducted (see Table 5).

In all projects combined a total of 2139 educators were reached through presentations which addressed the following topics (see Table 6):

- The nature and goals of career education
- Developing a career education plan
- Developing competency to infuse career education into the curriculum
- Changing work patterns of men and women
- Designing methods to overcome bias/stereotyping related to sex, race, handicap, economic status, ethnic origin, and age
- Ways to assist students in broadening career goals.

Although no current information was available for Project 16, during its first year of funding this project addressed all of the inservice topics identified above. Cumulatively, then, all of Tennessee's 1980-81 career education projects had an inservice component designed to increase staff competence to provide career education for students.

Fifteen of the 17 projects (88%) evaluated their inservice meetings or workshops (see Table 1). Evaluation instruments varied from locally developed forms, to one developped by the inservice consultant, to forms developed by other projects or organizations. The results of inservice evaluations were not reported by a few of the projects that conducted their own studies.

Three items on the Career Education Activities Survey were designed to assess the effectiveness of inservice activities (see Table 7). Although limited in scope, the responses indicate that for all but one of the projects, the response means were on the desired end of the scale (i.e., above 4) for the first and third items, and all project means were positive for item two.

While it is desirable to evaluate inservice activities when they occur, it is also important to attempt to gauge their effectiveness in changing behavior. This cannot be accomplished immediately. The teachers in eight of the nine projects that used the Career Education Activities Survey indicated (by a mean response of 4 or more) that they had used activities or techniques that had been presented in inservice programs (see Table 7).

Table 8 contains information about the infusion of career education into curricular areas. During 1980-81 students were exposed to career education in over 3400 classrooms in Tennessee. Students in grades 9-12 accounted for the largest proportion of these classrooms despite the fact that three projects (6, 13, and 17) concentrated entirely on lower grades. The large total for grades 9-12 (2,260) is due primarily to the presence of data from Project 4 which reported that students in 2,000 classrooms had been reached.

Data in Table 9 indicate that career education infusion was most likely to be carried out in language arts, math, science, and social studies classes. Information in Table 10 illustrates that teachers employed a variety of infusion techniques. The most widely used were class discussions (used by 542 teachers) and having students read about careers (486 teachers). Teachers were less likely to take students on field trips (281), to have students give reports (269) or to invite outside speakers into the classroom (268), than they were to use more traditional techniques such as films, filmstrips and slides (384) and bulletin boards or displays (372).

Approximately half of the teachers who completed surveys, or a total of 327 teachers from eight projects, reported that they had developed their own infusion activities. The average number of activities developed by each teacher was four.

Other Project Activities

Additional evidence of the impact of career education funding was provided in both the final project report checklists and the evaluation reports. During 1980-81 a total of 83 career resource centers were established or maintained with career education funds in 12 projects (see Table 11). While some projects maintained one center for use by all schools, others installed centers in several schools. Ten of 12 centers were designed for use by both the school and the public. Overall, 63 percent of the teachers in nine externally evaluated projects reported that they had visited their respective career resource centers, and an estimated 73 percent of their students had used the centers. While in most projects a majority of the teachers had visited the resource center, in four projects (2, 5, 10, and 13) less than half of the teachers had done so.

A total of 5,285 instructional and guidance materials were purchased with career education funds by 12 projects during 1980-81. It was estimated that 93 percent of all materials purchased were used, and that 75 percent of the career education materials placed in classrooms were used by students.

Through the Career Education Activities Survey more teachers reported having books in their classrooms (402) than any other type of resource material for student use (see Table 12). In the career resource centers booklets, pamphlets, or brochures and tapes were available to the largest number of teachers (227).

A total of 861 students in seven projects were provided with work experiences for the purpose of career exploration during 1980-81 (see Table 11). The projects facilitated reduction of bias and stereotyping by carrying out a total of 107 activities, ranging from none in some projects (3, 13) to a high of 49 (Project 5). Curriculum guides were developed in six projects during 1980-81: five projects produced a total of 13 guides and Project 4 developed a guide for every grade K-12.

The most commonly utilized publicity medium was the newspaper, with 133 articles concerning 15 projects published during 1980-81. A total of 63 presentations were made at community meetings. There was considerable variation among projects in the extent to which the career education program was publicized: some, notably Projects 4, 13, and 17, reported a large number of newspaper articles, while others reported only one or two.

Evaluation Activities

Eleven projects developed one or more evaluation instruments locally during 1980-81, while 12 projects used instruments developed outside the local area (see Table 13). Although one project director (Project 1) stated that an evaluation had been conducted, no information concerning the source of the instruments was provided. In all, 15 of the 17 projects reported having used some type of evaluation instrument.

Eleven projects (2, 4, 5, 8, 10, 11, 12, 13, 14, 15, and 17) contracted for external evaluation services with the Bureau of Educational Research and Service of the University of Tennessee, Knoxville. These evaluations were funded at a low level which precluded on-site information-gathering activities; thus data collection was the responsibility of each project director.

Eight of the 16 projects for which information was available on December 1, 1981 provided evidence of having measured student outcomes. Of these, only one project which was evaluated internally included student outcome information in the final report. While most projects did evaluate staff development activities, and nine of them showed the career education activities of teachers through the Career Education Activities Survey

(previously documented), the same importance apparently was not accorded the measurement of student outcomes. The Teacher Confidence Scale, developed by one of the consultants to several of the local projects, was used in various ways. Even when used in a pretest-posttest design, it again served to measure impact on teachers rather than students.

Four projects used the Career Maturity Inventory (CMI) as an assessment tool. Project 2 noted significant gains for ninth graders on the Goal Selection and Planning subsections of the CMI. There was a significant improvement on the Attitude scale for students involved in Project 4. Increases, though non-significant, also were found in the areas of Occupational Information (Project 2), Self-appraisal and Goal Selection (Project 4). Both projects used a pretest-posttest design to measure gains during the school year.

Project 15 employed a pretest-posttest control group design with eighth graders and found that the experimental group attained higher scores in Problem Solving than control group students on the posttest. In Project 8, students in grades 8 and 9 showed better scores in Occupational Information and Planning at the end of the school year than was the case in March.

Since there were differences in the length of time between the pretest and the posttest in the various projects, differences in results might be expected. If a project director had planned and administered the pretest in September, there would have been a greater chance of showing impact by June than if the instrument had been administered for the first time later in the year. Since the external evaluators were not employed until after the projects had been started, early administration was not always possible.

Project 5 measured changes in students in grades 3 and 5 between March and June using the Career Orientation Battery. Third grade students in the random sample showed a significant increase on the sex equity subscale, while fifth graders showed a significant decline in work attitudes. Considering the times at which they were tested, it would not be unusual to find attitudes becoming less favorable near the end of the school year.

Project 9 used a 12-item instrument for a pretest and posttest in grades K-12. The tabulated results were presented. Nine students who participated in a model home survival skills training program also completed a 17-item instrument. Results on both instruments were positive.

In Project 14 students who had been in the career education program for one year were compared with students who had just entered the school system using the Career Skills Assessment Program prepared by the College Board. The test group scored almost 40% higher than the new students in the following areas:

Employment Seeking Skills
Personal Economic Skills
Work Effectiveness Skills
Career Decision-Making Skills
Career Awareness Skills
Self-Evaluation and Developmental Skills.

Project 17 used data on a posttest-only basis for grades K-1, 2-3 when the locally developed instruments used in the pretest were determined to need significant modification. Student responses indicated a positive attitude toward career education and a desire to know more about it.

Project 15, in addition to using the CMI, also listed behavioral objectives for various grade level groups, with 84-100% of the students achieving the criterion levels. The director of Project 2 documented similar efforts.

Some projects did not report specific results obtained from their evaluation efforts. The Project 9 report included a statement that the project objectives were met with 98% accuracy. In Project 11, positive results were reported, but no results of student measures were given.

Project 9 included a copy of forms for various grade levels but reported tabulations only for the K-2 instrument. There was no measure of impact on students and little documentation in Project 1. Project 6 also cited positive results but did not give any supporting data. There was no discussion of evaluation in Project 7. Behavioral objectives were listed but no indication was given of whether or not criterion levels were met.

In general, some evidence of impact on students was demonstrated in the projects during 1980-81. Evaluation could have been more meaningful if all the projects had measured student outcomes. Many projects still seemed to be concerned primarily with impact on teachers. Since most projects were in the second year of funding, it would appear that some impact on students could have been documented. Pretest-posttest designs, while preferable to others, should be initiated early enough to allow time for change to occur. In some instances, the pretests were given only a few months before the posttest because the projects had not originally planned to do them.

Sources of Funding

Funding information was available only for the 10 projects that submitted the final project checklist (see Table 14). Those 10 projects utilized $142,266.00 of Career Education Incentive funds. In addition, $128,369.30 was expended by local education agencies for career education, and $101,657.50 was obtained from other sources. The Career Education Incentive funds accounted for 38 percent of the total amount devoted to career education by the 10 projects; LEAs contributed 35 percent, and 27 percent was derived from other sources. In three instances (Projects 2, 7, and 9) the local system's contributions to career education exceeded that received from the State.

Data recorded in Table 14 show that all funding from other sources was obtained by three projects (1, 4, and 17). All of these projects had full-time project directors that were employed with State funds. Of the seven other projects for which funding information was available, only one (Project 14) also employed a full-time project director. Further, in two of the projects (1 and 4) with full-time directors funding from other sources exceeded the total obtained from local funds and the Incentive Act.

While employing a full-time project director certainly would not guarantee that funds would be obtained from sources other than the local school system, nevertheless it appears that if a full-time director is not employed such funds are not likely to be forthcoming. If local projects are to become self-sustaining, emphasis should be placed on employment of a full-time director to assume responsibility for fund-raising as well as program management. A high level of local commitment, as shown in Projects 2, 7, and 9, also builds optimism for the continuation of the project once federal funds are exhausted.

Expenditure of Incentive Funds

Expenditure reports were available for only eight projects (see Table 15). A major problem in presenting an accounting of expenses is the variety of reporting formats that were used by the project directors. While some reports contained detailed account codes, two projects (2 and 3) used a less formal listing of expenditures and categories.

Since information was available for less than half of the projects, any category totals that might be calculated could not be considered an accurate representation of the State's utilization of Incentive Act funds.

Accomplishment of Objectives Through Local Projects

Most of the State Coordinator's leadership objectives were accomplished through local project activities (see Table 16). The objectives were stated in terms of criterion levels to be reached.

Evaluation reports prepared by the external evaluators were the only sources of information for six projects since those project directors did not submit final checklists. While the evaluation reports did contain most of the information sought in the checklist, they could not contain detailed funding reports as they were prepared prior to the closing of accounts for the projects. No information was available for one project.

While it was established that 88 percent of the projects formed an Advisory Council, it could be determined for only 71 percent of the projects that the Advisory Council had met at least once during 1980-81. The final report form asked project directors to indicate the number of meetings. The lack of completed forms may have produced a conservative figure.

The second area in which local project activities were not meeting stated objectives was that of bias/stereotyping: Only 71 percent of the project plans were reported to include emphasis on reducing bias/stereotyping (criterion: 75%); 53 percent of the projects documented three or more activities carried out to reduce bias/stereotyping (criterion: 85%); and 65 percent provided awareness sessions for other staff to enable them to reduce bias/stereotyping in materials (criterion: 90%).

One item which was not included in the final checklist could be added to determine whether the system had established a comprehensive guidance program (C_2). Eight of the 13 participating projects which were continuation projects had answered this question in the affirmative in the 1979-80 final checklist. Assuming that their programs had not changed in scope, this would mean that the objective for 1980-81 of 35% was exceeded.

Summary

Descriptive Information

Final reports on 16 of Tennessee's 17 local career education projects for 1980-81 produced the following descriptive information:

- Fifteen projects employed local advisory councils. In general the advisory councils were composed of representatives of business and industry, parents, and educators.
- Fourteen projects involved individuals and/or organizations from the community in their career education programs. Representatives of civic groups, government agencies, and business/industry were utilized most frequently.
- All projects conducted needs assessments prior to initiating their programs; nine carried out needs surveys during 1980-81. Teachers and school administrators were the groups most often asked to provide information concerning the need for career education.
- All projects conducted inservice training for teachers; in all, more than 2100 educators in the State received career education training through the projects funded during 1980-81.
- These trained educators provided career education for students in more than 3400 classrooms in Tennessee. If each class contained at least 25 students, over 85,000 students (28,500 in grades K-8 and 56,500 in grades 9-12) received career education in the 17 projects during 1980-81.
- Teachers infused career education into language arts, math, science, and social studies. The instructional techniques employed most frequently were class discussion and assigned reading; teachers were twice as likely to use discussion and reading as they were to bring in outside speakers or to take students on field trips. Half of the teachers responding to a survey designed by the evaluators reported that they had designed their own infusion activities.
- During 1980-81 more than 80 career resource centers were established with Tennessee's Career Education Incentive Act funds. Approximately 60 percent of the teachers in the local projects had visited one of the centers, and an estimated three-fourths of the students of these teachers had used materials from the centers.
- Incentive Act funds were used to purchase more than 5000 instructional and guidance materials in Tennessee in 1980-81. Teachers estimated that more than 90 percent of these materials had been used by students. Books constituted the type of career education materials most often placed in classrooms, while booklets, pamphlets, and tapes were the items purchased most frequently for use in career resource centers.
- The local projects provided work experiences for the purpose of career exploration for almost 900 students during the year.
- Curriculum guides were developed by personnel in six projects.
- The newspaper was the medium through which most publicity about Tennessee's career education projects was disseminated. More than 130 articles about 15 projects were published during 1980-81.
- For the ten local projects that submitted detailed financial reports the Career Education Incentive Act furnished 38 percent of the funds, LEAs contributed 35 percent, and 27 percent was derived from other sources. Only projects employing full-time project directors garnered external funding.

Information From Project Evaluations

Fifteen of the 17 local career education projects documented use of one or more evaluation instruments during the year. Eleven projects were evaluated by personnel in the Bureau of Educational Research and Service at the University of Tennessee, Knoxville.

Eight projects provided evidence of having utilized measures of student outcomes. Four used the Career Maturity Inventory. Of the four, two found that students who had experienced a career education program attained higher scores than a comparison group on the CMI Planning Scale. Higher scores for career education recipients were achieved on the Attitude, Goal Selection, Problem Solving, and Occupational Information scales by one project each.

The Career Orientation Battery was given to third and fifth graders in one project with the result that third graders involved in career education increased their scores on the Sex Equity scale of the instrument.

In another project students who had been in a career education program for a year achieved higher scores than a comparison group on six scales of the Career Skills Assessment Program instrument prepared by the College Board.

Accomplishment of Criterion-Referenced Objectives

Needs assessment data collected from a state-wide sample of superintendents, principals, teachers and community leaders in Tennessee during the year prior to the writing of the State Plan for Career Education in 1978 provided evidence that instructional materials and inservice training for staff constituted the most critical needs to be addressed if career education were to be implemented in more classrooms throughout the State. Local needs assessments which were included in proposals submitted for competitive Career Education Incentive funds in 1979 contained confirming evidence that these were the needs that must be met if students in Tennessee's public schools were to acquire knowledge of career education concepts.

Thirteen objectives in the State Plan addressed the needs for staff training and provision of instructional materials. In 1980-81 all local projects contained an inservice training component, and twelve projects utilized Career Education Incentive funds to purchase instructional and guidance materials.

Information derived from final reports on local projects indicated that nearly all criterion-referenced objectives specified for 1980-81 in the State Plan for Career Education were achieved. In only two areas did achievements fall somewhat below predicted levels. Whereas 75 percent of the local projects should have held at least one meeting of an advisory council during 1980-81, just 71 percent of the projects actually did so. Seventy-one percent of the projects described plans to emphasize reduction of bias/stereotyping when 75 percent should have done this. Only 65 percent of the projects provided awareness sessions for staff to enable them to assess bias/stereotyping in materials; 90 percent were supposed to do this during 1980-81. Finally, although 75 percent of the projects should have carried out at least three activities to reduce bias/stereotyping, only 50 percent did so.

TABLES

TABLE 1

SUMMARY OF PROJECT ACTIVITIES AND PROGRAM COMPONENTS

	Project																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total Number of Projects
Employed a part- or full-time career education coordinator	✓			✓						✓			✓	✓			✓	6
Formed an advisory council	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	15
Project objectives based on needs identified in local needs assessment prior to 1980-81	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	15
Conducted needs assessment during 1980-81	✓			✓		✓	✓	✓	✓		✓		✓		✓			9
Evaluated inservice/workshops for staff development in career education	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	15
School Board has adopted career education as a goal or as a policy statement	✓	✓		✓		✓	✓		✓	✓	✓			✓	✓	✓	✓	12
System has a career education plan	✓	✓		✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	14
Established or maintained career resource center(s)	✓	✓		✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	13
Purchased career education materials	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	15
Instructed teachers in delivery of materials		✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	13

(Table 1, continued)

	Project																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total Number of Projects
Project plans include emphasis on reducing bias/stereotyping in the school curriculum	✓	✓		✓		✓	✓			✓	✓	✓	✓	✓	✓		✓	12
Provided awareness session to enable staff to assess bias/stereotyping in materials	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	13
Reviewed career education materials to assess bias/stereotyping	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	13
Conducted an evaluation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	16
Provided work experiences for the purpose of career exploration							✓		✓	✓	✓	✓		✓	✓			7
Used representatives of local business/industry or government as resources for career-related activities during 1980-81	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	14

TABLE 2

ADVISORY COUNCIL COMPOSITION AND FUNCTIONING

Composition -- number of persons representing:	1	2	4	6	7	8	9	10	11	12	13	14	15	16	17
Business and industry	4	1	8	NR	3	5	1	1		1	5	5	NR		6
Labor	1	1	1		2	2					1				3
Parents	2	2	2		9	5	2	1	11	1		5			2
Educators	5	2	10		5	6	4	8		9	6	9			11
Other groups	9	1	6		7		1	1		3	2				2
Total membership	21	7	27		26	18	8	11	11	14	14	19	16		24
Number of advisory committee meetings during 1980-81	2	2	3		2	1	2	1	1	2	2	3			5

NR = numbers not reported

TABLE 3

TYPES AND NUMBERS OF GROUPS COOPERATING WITH THE SCHOOL SYSTEM IN IMPLEMENTING OR MAINTAINING CAREER EDUCATION EFFORTS.

GROUP	Project 1	2	4	6	7	8	9	10	11	12	13	14	15	17	Total
Civic	2	1	4		2		4	NR	NR	2		2		5	22
Professional	2	2		1	4					1		1		5	16
Government Agencies	1	9	5	4	8		5	NR		10		3		4	49
Business/Industry	4	7	9	1	5		4	NR	NR	5				2	37
Educational Institutions		1	5				2								8
TOTAL	9	20	23	6	19	NR	15	NR	NR	18	NR	6	14	16	

NR - numbers not reported

TABLE 4

SOURCES OF INFORMATION FOR NEEDS ASSESSMENTS CONDUCTED IN 1980-81

TYPES OF PERSONS	Project								
	1	4	6	7	8	9	11	13	15
Teachers	242	500	22	115	60	90	9	NR	
Administrators	26	128	3	8	6	7	2	NR	
Counselors	8	78		3	1	4		NR	
Parents		125	4	20				NR	
Students	5624	200	200	600		2508		NR	230
Others	18					1			

NR - numbers not reported

TABLE 5

STAFF PARTICIPATION IN INSERVICE

PERSONNEL	Project 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	TOTAL
Project Administrators	1	6	1	1		1	4		16	1	11	1	1	1		1	46
Administrators	14	10	8	200		5	6	2	7	9	2	31	1	9		6	310
Secondary Counselors	7	2	4	74			3	1	1	4	2	7	2	2		12	121
Elementary Counselors		1							3	2		2					8
K-6 Teachers	60	105	15	46		22	50		6	17	7	184	4	56		78	650
7-8 Teachers	12	17	8	124			19	10	2	2	1	57	5	16			273
9-12 Teachers		35	10	306			40	2	6	3		107		35			544
Special Education Teachers	32	6	4	5		2	9	1	18	1	1	52		5		5	141
Other	2	5	3					1	1	19		15					46
TOTAL	128	187	53	756	24	30	131	17	60	58	24	456	13	124	35	102	2139[a]

Mean = 137

[a] Includes totals for Projects 5 and 15 which are not classified.

TABLE 6

AREAS ADDRESSED THROUGH INSERVICE

AREA	Project															Percent of All Projects for 80-81
	1	2	3	4	6	7	8	9	10	11	12	13	14	15	17	
The nature and goals of career education	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	88
Developing a career education plan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	88
Developing competency to infuse career education into curriculum.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	88
Changing work patterns of men and women	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	82
Designing methods to overcome stereotyping/bias	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	82
Ways to assist students in broadening career goals		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	82

TABLE 7

EVALUATION OF INSERVICE ACTIVITIES
RESPONSE MEANS

ITEM	Project								
	2	4	5	8	10	11	13	14	15
Participation in the career education inservice activities during this school year has broadened my understanding of career education[a].	4.3	6.7	4.53	6.1	3.82	5.2	6.4	6.1	5.25
As a result of participation in the inservice activities, my attitude has become more[b] . . .	5.0	7.0	5.07	6.0	4.90	5.7	5.8	6.0	5.2
I have used activities or techniques presented in the inservice program in my classroom[c].	4.4	7.0	5.143	5.8	3.89	4.9	5.4	4.5	5.25

[a] Seven-point response scale with 1 = Very Little, 7 = Very Much

[b] Seven-point response scale with 1 = Unfavorable, 7 = Favorable

[c] Seven-point response scale with 1 = Definitely No, 7 = Definitely Yes

TABLE 8

NUMBER OF CLASSROOMS INVOLVED IN PROJECTS IN WHICH CAREER EDUCATION WAS INFUSED INTO CURRICULAR AREAS

	Project															
	1	2		4	6	7	8	9	10	11	12	13	14	15	17	TOTAL
K-6 Classrooms	148	76	20	66	56	48		46		61	184	X[a]	14		136	855
7-8 Classrooms	12	18	4	124		19	8	10	2	19	57		8			281
9-12 Classrooms		40	11	2000		40	2	25		27	107		8			2260
Comprehensive Developmental Classrooms	32	6	2	5	1	5		2		1	6					60
TOTAL	192	140	37	2195	57	112	10	83	all	108	354		30	16	136	3472[b]

[a] all K-4 teachers, number not reported

[b] Includes 16 for Project 15 not specified according to grade level

TABLE 9

SUBJECT AREAS IN WHICH CAREER EDUCATION INFUSION OCCURRED

SUBJECT	Project																Total Number of Projects[a]
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	
Language Arts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16
Math	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	15
Science		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	14
Social Studies		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	14
Health/Physical Education		✓		✓	✓	✓				✓		✓			✓	✓	8
Art/Music		✓		✓						✓			✓			✓	5
Vocational Education				✓			✓			✓	✓	✓			✓		6

[a]Total is limited to projects supplying information.

TABLE 10

TEACHERS' USE OF CAREER EDUCATION INFUSION TECHNIQUES

Technique	Number of Teachers by Project									
	2	4[a]	5	8	10	11	13	14	15	Total[b]
Career speakers	117	7[a]	21	2	76	7	23	12	10	268[b]
Field trips	138	5[a]	26	0	69	7	16	19	6	281[b]
Reading about the world of work	150	7[a]	75	10	129	14	3	62	16	486[b]
Class discussions	168	7[a]	89	10	152	15	24	65	19	542[b]
Films, filmstrips, slides	126	7[a]	38	9	107	14	22	50	18	384[b]
Bulletin boards or displays	142	7[a]	36	9	84	12	22	53	14	372[b]
Interest centers	56	7[a]	23	7	37	3	15	44	6	191[b]
Student reports	86	7[a]	23	8	70	11	11	46	14	269[b]
Games or similar activities	93	4[a]	44	6	72	7	12	46	14	294[b]
Examine tools, machinery, or other objects connected with work	113	6[a]	33	2	85	7	12	36	9	297[b]
Other	14	3[a]	7	1	16	0	0	0	1	39[b]
Developed own activities	128	7[a]	33	8	82	11	13	39	13	327[b]
Average number of activities developed	1.3	18	4	4	1.6	4	3	4.9	9	
Number of teachers responding	179		115	10	194	19	49	77	20	663

[a] Information available from seven schools where each school equals one unit (n=7)

[b] Project 4 not included in total

TABLE .11

PROJECT ACCOMPLISHMENTS, UTILIZATION OF RESOURCES, AND PUBLICITY EFFORTS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	Total	Avg.
Number of Career Resource Centers established or maintained with career education funds.	21	11		1			3[b]		1	1	11	5	1	9	1	18[b]	83	7
Percent of teachers visiting the Career Resource Centers.		46		100[a]	15			100		47	89		8	89	72			63
Percent of students visiting the Career Resource Centers.		73		96[a]	62			75		55	60		80	75	83			73
Number of instructional and guidance materials purchased with career education funds.	20	725		30		120	205	225		1237	177		7	1650	293	596	5285	440
Percent of materials used.	100	100		100[a]			95	90	85	100	90	80	75	95	100	95		93
Percent of materials in the classroom used by students.		69		86[a]	57			81		67	58		84	80	91			75
Number of students provided with work experiences for the purpose of career exploration during 80-81.							25		90	584	60	73		25	4		861	123
Number of activities carried out designed to reduce bias/stereotyping.	2	4		6	49	3	10		8	2	1	10		1	6	5	107	8
Number of curriculum guides developed	1	2		K-12					3		3			4			26	4
Dissemination-number of newspaper articles released in 1980-81.	2	4	1	16		6	3	4	6	8	5	2	22	2	2	50	133	9
Magazine or periodical articles.	5			2			2									1	10	2
Local radio presentations.				2			9	1	1	1		2					16	3
Television presentations.	2						5			6							13	4
Community meetings presentations.	8			12			7		8	1	5	1		1		20	63	7

[a] Information available from seven schools; each school reported as one unit (n=7).

[b] Career Resource Centers not designed to meet the needs of both students and the public.

TABLE 12

NUMBERS OF TEACHERS HAVING ACCESS TO CAREER EDUCATION MATERIALS FOR STUDENT USE

	Project										
	2	4[a]	5	8	10	11	13	14	15	Total[b]	Average[b]
IN CLASSROOM:											
Books	128	7[a]	60	7	105	16	39	32	15	402	51
Booklets, pamphlets, or brochures	95	7[a]	25	7	78	10	14	34	11	274	34
Tapes	45	5[a]	17	3	30	3	7	19	9	133	17
Slides	44	4[a]	8	1	22	2	5	17	3	102	13
Microfilm/microfiche	7	2[a]	2	0	5	0	0	22	2	38	5
Resource file	15	4[a]	8	1	30	3	8	26	5	96	12
Other	16	0	10	1	14	0	5	9	7	62	8
IN CAREER INFORMATION CENTER:											
Books	56	4[a]	17	6	62	14	3	43	12	213	27
Booklets, pamphlets or brochures	58	6[a]	20	4	68	14	8	43	12	227	28
Tapes	88	6[a]	8	6	48	15	10	43	9	227	23
Slides	58	6[a]	9	4	50	10	12	43		192	24
Microfilm/microfiche	31	3[a]	3	3	27	9	6	43	12	134	17
Resource file	65	4[a]	11	2	59	13	6	43	8	207	26
Other	19	1[a]	7	0	10	6	3	12	3	60	9

[a] Information available from seven schools; each school equals one unit (n=7).

[b] Not including Project 4.

TABLE 13

TYPES OF EVALUATION INSTRUMENTS AND SOURCES OF DATA

	Project																No. of Projects	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17		
Number of evaluation instruments which were:																		
Developed locally		1		5		3	7	1	10	1		1		2	2	4	11	37
Developed by someone outside the local area		1	1	3	4			2	2	1	1	1	2	6	2		12	26
Types of persons providing evaluation data:																		
Teachers	241	170	25	500	204	20	12	10	90	200	19	322	52	15		188	15	
Administrators	26	6	5	128		5	2	1	7					9		1	10	
Counselors	8	2	2	78			2	1	4					2			8	
Parents		2		125		3	6							10			5	
Students	5642			200	61	200	250	60	836					60	151		9	
Other		5							1								2	

TABLE 14

FUNDS EXPENDED IN SUPPORT OF CAREER EDUCATION AND THEIR SOURCES

	Project										
	1	2	3	4	6	7	8	9	14	17	TOTAL
Local Educational Agency	3,600.00	23,559.00		24,000.00	2,200.00	39,655.80	1.05	20,403.20	9,950.25	5,000.00	128,369.30
Career Education Incentive Funds	24,000.00	15,000.00	4,700.00	30,000.00	5,125.00	10,500.00	4,500.00	9.691.00	18,750.00	20,000.00	142,266.00
Other	39,817.00			51,025.00						10,815.00	101,657.50
TOTAL	67,417.00	38,559.00	4,700.00	105,025.00	7,325.00	50,155.80	4,501.05	30,094.20	28,700.25	35,815.00	372,292.30

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TABLE 15

PROJECT EXPENDITURES OF INCENTIVE FUNDS

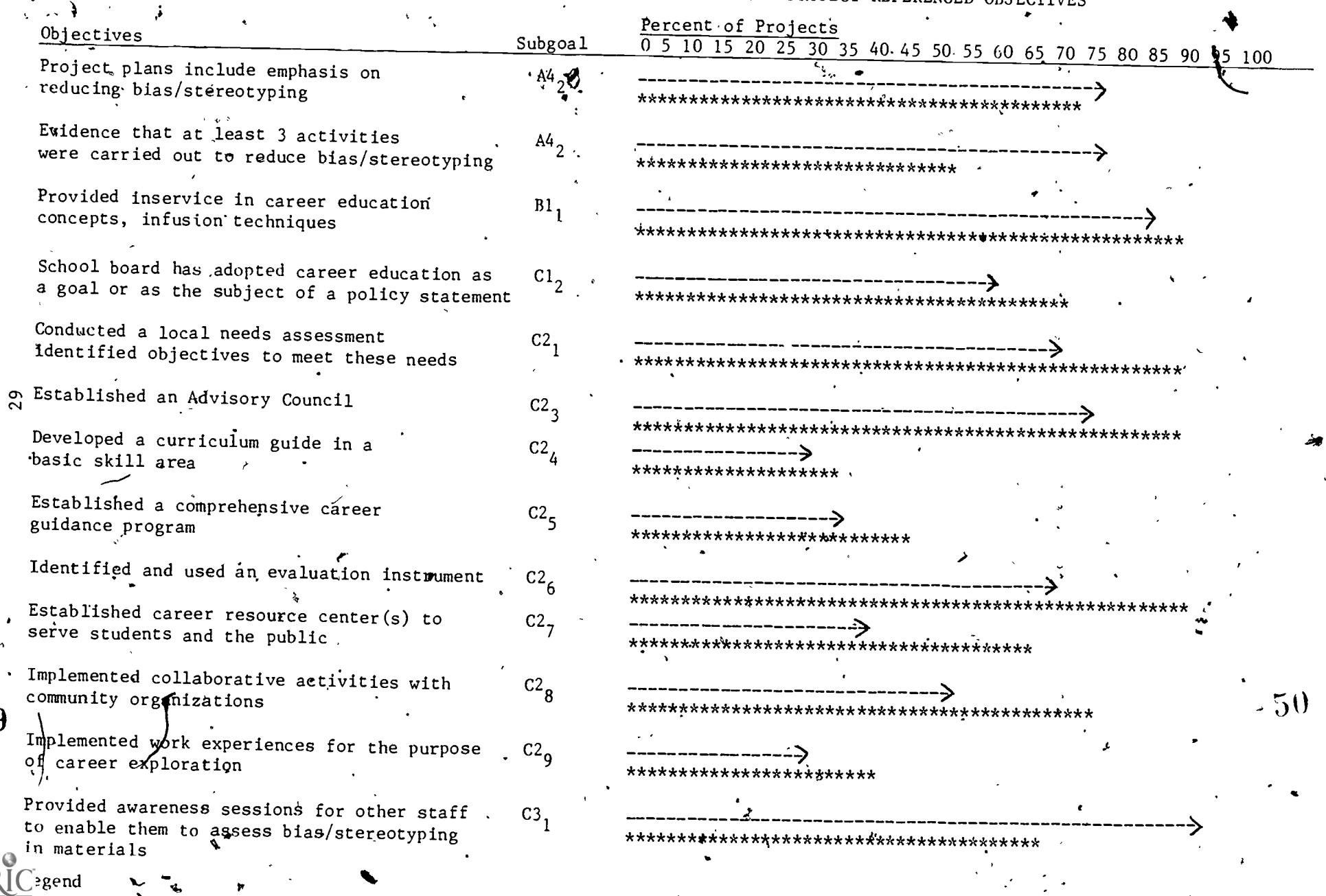
Budget Category		Project							
		1	2	3	6	7	8	9	17
2120.1	Travel					861.31			
2210.32	Salaries				94.80			3000	15.527
2220.9	Other Contracted Services				1.465		600	600	
2220.11	Travel, Field Trips					2089.60	208	800	
2230.1	Instructional Supplies		1000			76.72	3693.05		
	Supplies and Materials							4000	66.94
2244	Printed & Published Materials		7008		1656.67	4643.12			
2290.9	Other		5792		1909.33				
2800	Fixed							448.32	4131.44
3273.31	Equipment					1057.50			
3600	Handicapped:								
3710.31	Coordinator	14.325							
3720.11	Travel	1857.61							
3730.1	Supplies and Materials	1098.63						600	
3751-3752	Fixed	2020.03							
3920	Indirect	617.64				271.75		242.68	322.70

(Table 15, continued)

Budget Category	Project							
	1	2	3	6	7	8	9	17
Travel and Expenses		600	250.88					
Materials and Supplies			500					
Consultants			1200					
Salaries/Teachers		600	2512.50					
Miscellaneous			200					
TOTAL	19,918.91	15,000	4663.38	5125.00	9000	4501.05	9691.00	20,048.08

TABLE 16

ACCOMPLISHMENT OF STATE COORDINATOR'S CRITERION-BASED PROJECT-REFERENCED OBJECTIVES



(Table 16,.continued)

Objective	Subgoal	Percent of Projects 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100
Purchased instructional and career guidance materials	$C3_2$	----------→ **********
Instructed users in appropriate delivery of materials	$C3_2$	----------→ **********
Reviewed materials to insure that they are bias and stereotype free	$C3_2$	----------→ **********
Advisory Council has met	$C3_2$	----------→ **********

Legend

----------→ Criterion level

********** Level of Accomplishment