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ABSTRACT

Drawing upon a database of state-administered vocational education program improvement projects, a study examined state-administered programs to improve vocational education that were implemented from fiscal 1978 through fiscal 1982. After analyzing abstracts of 3,994 research, exemplary and innovative, and curriculum development activities, researchers drew the following conclusions: (1) states seem to place a lower priority on research, exemplary and innovative, and curriculum development activities than on vocational guidance and counseling, personnel training, and sex equity; (2) public educational agencies and institutions play a dominant role in program improvement activities; (3) states show a heavy concern for assisting practicing teachers and a relatively small concern for teacher education programs; (4) state funding for distributing materials have increased annually; and (5) the greatest program improvement effort has focused on improvement of instruction in local vocational education programs. Based on these findings, recommendations called for development of more descriptive abstracts for the database from which these findings were drawn, for more research concerning vocational education personnel training, for closer coordination of curriculum development activities across states, and for further research on the allocation of program improvement funds between preservice and inservice educational programs. (MN)

VOCATIONAL EDUCATION PROGRAM IMPROVEMENT: AN ANALYSIS OF STATE-ADMINISTERED PROJECTS IN FY 1978 - FY 1982

by

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[illegible] nter for Research in Vocational Education's mission [illegible] diverse agencies, institutions, and organi- [illegible] problems relating to individual career [illegible] and progression. The National Center fulfills [illegible]

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

FOREWORD

A 1976 assessment by the Committee for Vocational Education Research and Development (COVERD) was highly critical of the vocational education research and development program because of its apparent lack of impact due to shifting research priorities, geographic restrictions on distribution of research and development funds, lack of coordination between parts, inadequate dissemination and utilization, failure to examine impact, and slow start-up. The Education Amendments of 1976 (P.L. 94-482) responded to many of the concerns raised about vocational education research and development. It provided for Programs of National Significance to be administered at the federal level and Program Improvement and Supportive Services to be administered at the state level.

Vocational Education Program Improvement: An Analysis of State-Administered Projects in FY 1978-1982 summarizes the state-administered research, exemplary and innovative, and curriculum development activities for the last five years. The information reported in this analysis has been generated from the online vocational education program improvement database (known by the acronym RIVE, Resources in Vocational Education) which has wide use and application by persons in federal and state agencies. Information retrieved from the database may be used to report accomplishments to policy makers, monitor expenditures, track products to projects, set priorities, develop cooperative program improvement activities, and avoid duplication of effort.

The analysis was conducted in the Information Systems Division of the National Center under the direction of Joel H. Magisos. Wesley E. Budke, Director of the National Center Clearinghouse, prepared this analysis. Dr. Budke holds a Ph.D. in Agricultural Education from The Ohio State University and has been involved in vocational education information system development and educational product dissemination work at the National Center since 1970. Special recognition is given to project staff members Judith Wagner, Wheeler Richards, Alan Kohan, and Peter Ewang for their help in retrieving and preparing the data.

Critiques of a preliminary draft of the paper were provided by John Washburn, Illinois Department of Adult, Vocational, and Technical Education; Jerry C. Olson, Pennsylvania Department of Education; Edgar Hornback, State Board for Vocational and Technical Education; Earl Russell, University of Illinois-Champaign; Erma Keyes, VEIN; and Daniel Dunham, William Stevenson, Jay Smink, and Shirley Chase from the National Center for Research in Vocational Education. Janet Ray provided word processing assistance and final editing of the document was provided under the supervision of Janet Kiplinger of the National Center's Editorial Services.

The contribution of all of these individuals to the preparation of this paper is appreciated. The reviewers should, however, in no way be held responsible for the viewpoints presented in this paper. That responsibility rests solely with the author.

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Robert E. Taylor
Executive Director
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EXECUTIVE SUMMARY

The Education Amendments of 1976 (P.L. 94-482) provided for Program Improvement and Support Services to be administered at the state level. The Rules and Regulations for the Amendments required the state research coordinating units to submit abstracts of contracted program improvement projects under Section 131 (research), Section 132 (exemplary and innovative), and Section 133 (curriculum development) to the National Center for Research in Vocational Education. To provide a comprehensive record of the state vocational education program improvement activities, an online database (RIVE) was developed. Nearly 4,000 program improvement projects--research, exemplary and innovative, and curriculum development--conducted during FY 1978 through FY 1982 are described in this database.

A total of 3,994 projects and $104,638,145 of obligated funds were reported for the five-year period. This analysis reports the number of projects and the associated obligated funds by fiscal year and legislative section by state, recipient of project funds, target population, project outcomes, and priority or problem area.

The following conclusions about state-administered vocational education program improvement activities were drawn from the data reported:

- The vocational education program improvement database is a useful tool for summarizing and analyzing vocational education research, exemplary and innovative, and curriculum development activity.
- States seem to place a lower priority on research, exemplary and innovative, and curriculum development activities than on vocational guidance and counseling, personnel training, and sex equity.
- States seem to allocate a rather stable portion (18.3 to 20.7 percent) of the federal allocation for program improvement to research, exemplary and innovative, and curriculum development activities.
- States place about equal emphasis on research, exemplary and innovative, and curriculum development activities.
- Curriculum development seems to be perceived by the states to be more important than research and exemplary and innovative activities.
- Public education agencies and institutions played a dominant role in conducting program improvement activities.
- States showed a heavy concern for assisting practicing teachers and a relatively small concern for teacher education programs.

- State-level commitment to dissemination is strong and stable in that the funds obligated for distribution of materials has increased annually.
- The greatest program improvement effort has focused directly on improvement of instruction in local vocational education programs.

INTRODUCTION

The Vocational Education Act of 1963 (P.L. 88-210) was the landmark legislation for vocational education program improvement because it contained broad provisions for research and training, as well as experimental, and demonstration or pilot programs. Funding authorized under the legislation was appropriated by Congress and allocated by the Commissioner of Education for institutional capacity building and for such priorities as program evaluation, resource development, vocational guidance and career choice, organization and administration, and new careers. The subsequent Vocational Education Act of 1968 (P.L. 90-576) authorized support of grants for research, training, exemplary programs, and curriculum development. A part of the research and exemplary programs was to be administered at the state level.

A 1976 assessment by the Committee for Vocational Education Research and Development (COVERD) was highly critical of the vocational education research and development program because of its apparent lack of documented impact due to shifting research priorities, geographic restriction on distribution of research and development funds, lack of coordination between or among parts, inadequate dissemination and utilization, failure to examine impact, and slow start-up. COVERD faulted vocational education research and development for not focusing on the larger philosophical and policy issues during the previous ten-year period.

The Education Amendments of 1976 (P.L. 94-482) responded to many of the concerns raised about vocational education research and development. It provided for Programs of National Significance to be administered at the federal level and for Program Improvement and Support Services to be administered at the state level. The act encouraged consolidation of programs, more responsible management, and specific accountability. The Rules and Regulations for the Act required that state research coordinating units submit to the National Center for Research in Vocational Education abstracts of program improvement projects under Section 131 (research), Section 132 (exemplary and innovative), and Section 133 (curriculum development) when contracted, and reports and products resulting from each project within ninety days of its completion.

States were not required to submit abstracts of projects funded under Section 134 (vocational guidance and counseling), Section 135 (vocational education personnel training), and Section 136 (sex equity). These projects receive approximately 80 percent of the program improvement funds.

The legislative intent of research, exemplary and innovative, and curriculum development projects was to emphasize improvement in planned use of available resources for vocational education and manpower training; in extension, improvement, and where necessary, maintenance of existing programs; in development of new programs; in elimination of sex discrimination and sex

stereotyping; and in provision of part-time employment for needy youth. The substance of these three legislative sections on program improvement is presented next.

Section 131: Research. Funds may be used to support state research coordinating units (RCUs) and for contracts to be granted by RCUs for program improvement involving (1) applied research and development projects; (2) experimental, developmental, and pilot programs designed to test the effectiveness of research findings, including programs to overcome problems of sex bias and sex stereotyping; (3) improved curriculum materials for current programs and new materials for new and emerging job fields; (4) development of new careers and occupations in fields such as mental and physical health, crime prevention and correction, welfare, education, municipal services, child care, and recreation; (5) training and development projects designed to demonstrate improved methods of obtaining the cooperation of both public and private sectors the better to coordinate and implement programs for employing persons in the fields described above; (6) evaluation of programs relating to training and using public service aides; and (7) dissemination of contract results locally. Contracts must result in improved teaching techniques, or in curriculum materials that will be used in substantial numbers of classrooms or other learning situations within five years after contract termination.

Section 132: Exemplary and Innovative. Funds may be used for contracts for the support of exemplary and innovative programs. These include (1) developing high-quality vocational education programs for urban centers with high concentrations of economically disadvantaged, unskilled workers, and unemployed individuals; (2) developing training opportunities for persons in sparsely populated rural areas and individuals migrating from farms to urban areas; (3) providing effective vocational education for individuals with limited English-speaking ability; (4) establishing cooperative arrangements between public education and human resource development agencies designed to correlate vocational education opportunities with current and projected labor market needs; (5) broadening occupational aspirations and opportunities for youth (with special emphasis given to youth who have academic, socioeconomic; or other handicaps), including programs and projects designed to familiarize elementary and secondary students with a broad range of occupations for which special skills are required and the requisites for careers in such occupations; and (6) facilitating participation of employers and labor organizations in postsecondary education.

Other provisions of Section 132 give priority to programs designed to reduce sex stereotyping in vocational education and provide for participation of students enrolled in nonprofit private schools. Annual program plans and accountability

reports covering the final year of financial support by the state for these programs must indicate what will happen to the program after federal support is discontinued, and how promising programs will be continued and expanded within the state.

Section 133: Curriculum Development, Funds may be used for contracts to support curriculum development projects, including developing and disseminating vocational education curriculum materials for new and changing occupational fields and for individuals with special needs. Funds may be used also for contracts to develop guidance, curriculum and testing materials, and to provide support services designed to overcome sex bias. Contracts must result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after contract termination.

Vocational Education Program Improvement Database

A computerized database, Resources in Vocational Education (RIVE) was developed by the National Center for Research in Vocational Education to organize a comprehensive record of vocational education program improvement activities conducted by the states. RIVE contains the following kinds of information on nearly 4,000 program improvement projects conducted during FY 1978 through FY 1982: the fiscal year, the legislative section number from which the funds were appropriated, the state, the title of the project, the name and address of the project director, the amount of project funds, and an annotation about the project. ERIC descriptors were adopted to facilitate composition and retrieval of this information in abstract form. A sample abstract is displayed in Appendix A. The public was given access to RIVE as a database of the Bibliographic Retrieval Services, Inc. (BRS) on March 1, 1982.

The program improvement database has wide use and application by personnel in federal and state agencies as well as proposers and performers in the vocational and technical education field. Information retrieved from the database may be used to report accomplishments to policymakers, monitor expenditures, track products to projects, set priorities, develop cooperative program improvement activities, and avoid duplication of effort.

Three summaries of data provided by the states on their program improvement projects were prepared by the National Center for Research in Vocational Education and are available through the ERIC system: FY 1978 and FY 1979 (ED 194 768), FY 1980 (ED 198 263), and FY 1981 (ED 215 147). These reports identify each state's projects by type of contracted agency, purpose, and results. Further investigation on qualitative and programmatic dimensions and the impact of these state projects went beyond the scope of the summary reports, but can be facilitated through the database.

This report summarizes five years (FY 1978 through FY 1982) of state program improvement project activity based on the data submitted to the National

Center through FY 1982. Analysis of selected data offers informative response to these kinds of questions:

- o How may projects were conducted and how much money was obligated?
- o How do states compare in the number of projects conducted and the amount of funds obligated?
- o Are projects addressing critical problems and issues?
- o What is the relative emphasis on target audiences and problem areas?
- o What kinds of agencies and organizations are conducting the work?

Trends in funding, numbers of projects, types of projects, and the population served are tracked to demonstrate usefulness of the data for educational practitioners, researchers, administrators, and policymakers seeking answers to program development and improvement questions and information for policymaking decisions.

The capacity for developing more definitive findings related to the productivity of and potential for vocational program improvement through state administration of federal dollars for contracted projects is enhanced by RIVE. As demonstated by the report, the RIVE database is a multi-faceted resource for those who deem factual information critical when applying creative talents to substantive issues and inquiries.

METHODOLOGY

The database of state-administered program improvement projects is managed by the National Center Clearinghouse staff. They review and analyze descriptive abstracts provided by state research coordinating units to identify, clarify, and compile project data. This requires the following repeated structured operational sequence:

1. Clearinghouse staff review each abstract for complete bibliographic and funding information. Missing information is requested from the state.

2. They compile a list of projects received from each state and request verification from the state research coordinating unit director.

3. They edit and index project abstracts according to ERIC format.

4. They code and process key variables for the computer file (i.e., organization type, target population, education level, outcomes, priorities).

5. They sort and tabulate data by computer searching the program improvement database maintained by BRS.

6. They create table displays of aggregate data (See Findings section of this report).

FINDINGS

The findings reported in this section are based upon data drawn from program improvement project abstracts supplied by state research coordinating units. Since they administer the program improvement activities, their review of the project abstract list is considered verification that the data file is complete.

A computer search of the RIVE database was conducted through the Bibliographic Retrieval Services, Inc. (BRS), Latham, New York. The number of contracts and the amount of obligated funds for state-administered program improvement projects were retrieved and summarized by categories:

- o Program improvement projects by state
- o Program improvement projects by legislative section
- o Contract recipients of project funding
- o Target populations of state program improvement projects
- o Outcomes of projects
- o Priority areas addressed by projects.

In a later section of the report, state program improvement projects specifically related to curriculum are discussed.

The information reported about state-administered program improvement projects in the RIVE database is influenced by the following factors:

1. The information was taken from the funded proposals, but does not reflect subsequent concellations of funding and scope adjustments throughout the life of the project.
2. State departments of vocational education are allowed to carry-over funds to the following year, thus allowing some delayed program improvement activity.
3. The data reported in this summary reflects the program improvement information in the RIVE database as of November 15, 1982.
4. The program improvement activities reported represent only those receiving federal funds under Section 131 (research), Section 132 (exemplary and innovative), and Section 133 (curriculum development) of Subpart 3 of the Education Amendments of 1976.

5. The projects reported have been verified as correct by the research coordinating units.

Federal Allocations to State Program Improvement

State allocation of program improvement funds to Section 131 (research), Section 132 (exemplary and innovative), and Section 133 (curriculum development) is made possible by federal allocation to the states. Table 1 shows these federal allocations for FY 1978 through 1982. Also shown are the amount of these funds allocated by the states (collectively) for research, exemplary and innovative, and curriculum development activities.

During the five years, the portion of federal allocation to these sections showed a maximum of 2.4 percent variation (FY 1978-FY 1980) while total allocation showed a maximum differential of nearly $32 million (FY 1982-FY 1982). In FY 1981, states received the highest total allocation for all program improvement, but a reduced percent of allocation for Sections 131, 132, and 133.

State Funding of Projects

Table 2 summarizes the number of funded vocational education program improvement projects in the categories of research, exemplary and innovative, and curriculum development, as well as the federal funds obligated for these projects in each of the states and territories for FY 1978 through 1982 (July 1, 1977 through June 30, 1982), noteworthy findings include the following:

1. For the five years FY 1978-FY 1982, states and territories reported 3,994 program improvement projects for which $104,638,145 was obligated.

2. The number of projects ranged from zero in two territories to 314 in Pennsylvania. This state also had the largest number of projects (88) in any on year (FY 1980) with an average obligation of $16,571.

3. Obligated funds for projects ranged from zero in two territories to $13,428,148 in Texas.

4. The average funding for projects was $26,199, ranging from $5,227 in the state of Washington to $103,000 in Mississippi.

5. Most states had their peak years of project funding in FY 1980 and FY 1981. This coincided with the peak year of federal allocations (See Table 1).

6. FY 1982 was the lowest funding year with 695 projects and $17,430,444 obligated. This decline represents a 24 percent decrease in the number of projects funded and 29 percent decrease in funding from the FY 1981 peak year.

TABLE 1

FEDERAL ALLOCATIONS FOR STATE PROGRAM IMPROVEMENT ACTIVITIES (IN DOLLARS)

Fiscal Year	Total Federal Allocation To States for Subpart 3	State Allocation To Sections 131, 132, & 133	Percent of Total Allocated to Sections 131, 132, & 133
1978	103,324,822	18,905,159	18.3
1979	107,667,991	20,158,728	18.7
1980	113,662,067	23,514,466	20,7
1981	126,162,326	24,629,348	19.5
1982	94,670,070	17,430,444	18.4
TOTAL	545,488,276	104,638,145	19.2

SOURCE: Office of Vocational and Adult Education, U.S. Department of Education Allotment Tables.

TABLE 2

FY 1978–1982 STATE PROGRAM IMPROVEMENT PROJECT FUNDING BY STATES AND FISCAL YEAR (SECTIONS 131, 132 & 133)

	FY 1978		FY 1979		FY 1980		FY 1981		FY 1982		5 Yr Total	
	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount
Alabama	1	50,000	9	87,801	3	35,004	–	–	11	50,383	24	223,188
Alaska	8	63,393	3	32,321	2	103,200	1	4,426	–	– *	14	203,340
American Samoa	–	–	–	–	–	–	–	–	–	– *	–	–
Arizona	15	214,176	16	162,000	9	128,494	12	161,744	–	– *	52	666,414
Arkansas	6	125,374	8	109,281	16	294,573	10	118,240	13	267,378	53	914,846
California	39	2,042,755	16	759,960	21	812,675	8	585,230	8	466,551	92	4,667,171
Colorado	3	14,488	12	285,538	8	111,320	8	201,315	–	– *	31	612,661
Connecticut	24	205,244	2	44,109	21	513,796	23	496,058	35	468,662	105	1,727,869
Delaware	2	19,097	2	41,600	2	6,000	11	219,798	2	7,328	19	293,823
District of Columbia	4	315,273	–	–	–	–	–	–	–	– *	4	315,273
Florida	17	787,256	28	906,853	23	773,854	30	1,183,699	23	859,881	121	4,511,543
Georgia	5	333,648	8	329,633	35	855,614	27	727,570	18	360,971	93	2,607,436
Guam	–	–	–	–	2	21,861	–	–	–	– *	2	21,861
Hawaii	–	–	6	41,910	–	–	3	29,300	–	– *	9	71,210
Idaho	13	111,292	10	96,232	5	49,783	2	29,500	1	15,000	31	301,807
Illinois	68	1,729,853	69	2,577,673	65	2,627,403	54	2,609,516	31	1,636,646	287	11,181,091
Indiana	41	2,119,800	19	558,592	45	845,283	35	982,119	16	696,936	156	5,202,730
Iowa	6	273,099	37	443,041	11	439,621	9	106,059	4	365,242	67	1,627,062
Kansas	13	153,904	18	161,843	23	214,088	35	396,718	21	274,793	110	1,201,346
Kentucky	17	333,516	4	96,975	21	406,904	77	1,150,764	12	512,705	131	2,500,864
Louisiana	8	207,187	7	161,317	9	152,540	21	411,179	13	308,908	58	1,241,131
Maine	9	75,446	3	48,374	2	43,368	1	36,600	–	– *	15	203,788
Maryland	21	64,955	56	780,632	15	441,754	14	509,990	13	456,300	119	2,253,631
Massachusetts	5	283,764	9	646,542	11	429,425	31	1,187,297	27	842,827	83	3,389,855
Michigan	5	456,250	6	409,000	6	293,935	7	613,331	–	– *	24	1,772,516
Minnesota	15	415,156	21	406,161	29	333,380	10	262,290	6	310,000	81	1,726,987
Mississippi	7	149,895	3	472,580	3	539,911	8	735,836	5	782,143	26	2,680,365
Missouri	18	135,368	–	–	8	378,820	11	619,332	35	536,582	72	1,670,102
Montana	4	33,530	12	160,171	11	138,887	6	42,887	3	17,238	36	392,713
Nebraska	2	10,240	2	44,371	8	92,275	7	101,039	1	18,557	20	266,482

*Information for this analysis was taken from the RIVE database on November 15, 1982. Although this is four and one-half months after the close of FY 1982 program improvement activity, it is possible that a minimal number of projects for FY 1982 were not yet reported.

	FY 1978		FY 1979		FY 1980		FY 1981		FY 1982		5 Yr Total	
	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount
Nevada	1	70,000	6	34,998	11	220,985	9	95,528	-	- *	27	421,511
New Hampshire	3	22,826	-	-	2	20,000	1	10,000	3	25,848	9	78,674
New Jersey	29	536,968	17	288,933	37	553,267	55	927,545	45	685,876	183	2,992,589
New Mexico	14	518,660	-	-	-	-	6	273,500	3	146,000	23	938,160
New York	49	1,493,624	41	1,394,228	46	2,454,231	29	1,593,870	11	540,734	176	7,476,687
North Carolina	3	24,879	3	157,072	6	181,808	-	-	5	87,646	17	451,405
North Dakota	15	62,841	14	78,732	14	85,922	12	85,999	5	43,000	60	356,494
Ohio	34	1,126,820	42	1,154,842	26	1,175,000	34	1,158,580	29	766,786	165	5,382,028
Oklahoma	3	92,011	7	177,744	18	280,203	14	229,725	10	97,500	52	877,183
Oregon	16	199,033	14	119,417	7	123,070	11	220,563	16	261,426	64	923,509
Pennsylvania	47	862,528	72	1,102,121	88	1,458,227	54	1,533,094	53	1,159,035	314	6,115,005
Puerto Rico	1	94,528	-	-	-	-	-	-	-	- *	1	94,528
Rhode Island	8	62,281	-	-	-	-	9	99,690	-	- *	17	161,971
South Carolina	-	-	4	121,195	22	218,250	29	83,588	27	82,380	82	505,413
South Dakota	3	144,000	1	109,000	18	150,313	-	-	1	26,697	23	430,010
Tennessee	12	282,190	20	689,816	24	1,112,354	9	178,978	13	462,242	78	2,725,580
Texas	24	1,580,274	59	2,827,917	56	3,182,242	60	3,010,029	52	2,827,686	251	13,428,148
Utah	-	-	4	62,896	1	20,000	3	21,192	16	144,494	24	248,582
Vermont	-	-	10	111,704	1	17,000	7	61,832	-	- *	18	190,536
Virgin Islands	-	-	-	-	-	-	-	-	-	- *	-	-
Virginia	21	168,422	29	1,017,675	16	618,513	16	346,353	10	107,822	92	2,258,785
Washington	14	125,930	14	76,780	8	74,103	15	71,772	56	210,712	107	559,297
West Virginia	33	338,912	25	248,435	15	146,803	8	122,147	16	77,997	97	934,294
Wisconsin	16	300,393	34	482,313	15	338,407	43	816,857	20	347,910	128	2,285,880
Wyoming	13	74,080	8	38,400	-	-	24	166,669	6	73,622	51	352,771
TOTALS	735	18,905,159	810	20,158,728	845	23,514,466	909	24,629,348	695	17,430,444	3,994	104,638,145

7. Eleven states had an increase in project funding in FY 1982 over FY 1981. Mississippi was the only state that reported an increase in project funding in each fiscal year from 1978 through 1982.

Table 3 shows the number of vocational education program improvement projects and the funds obligated for projects in each of the states and territories under provisions of Section 131 (research), Section 132 (exemplary and innovative), and Section 133 (curriculum development) of P.L. 94-482 during FY 1978 through FY 1982. Two findings are noteworthy:

1. The total number of projects and the amount of funds obligated by states under each legislative section were nearly equal.

2. Four states or territories (District of Columbia, Nevada, Ohio, and Puerto Rico) funded projects under only one legislative section.

Legislative Sections

Table 4 shows the collective state distribution of projects and funds across the program improvement sections (i.e., research, exemplary and innovative, and curriculum development) for FY 1978 through FY 1982. Analysis of Table 4 permits the following observations:

Research (Section 131)

1. The 1,287 projects conducted under this section received $34,089,000 obligated funds, an average of $26,487.

2. The number of projects ranged from 207 in FY 1982 to 283 in FY 1981.

3. The total amount of annual funding ranged from $4,762,046 in FY 1982 to $8,096,368 in FY 1980.

4. The number of projects in FY 1982 decreased by 27 percent from FY 1981 and the amount of obligated funds decreased by 40 percent from FY 1981.

Exemplary and Innovative (Section 132)

1. The 1,365 projects conducted under this section received $33,361,630 obligated funds, an average of $24,441.

2. The number of projects ranged from 225 in FY 1982 to 326 in FY 1981.

3. The total amount of annual funding ranged from $5,841,342 in FY 1982 to $7,333,862 in FY 1981.

4. The number of projects in FY 1982 decreased by 31 percent from FY 1981 and the amount of obligated funds decreased by 20 percent from FY 1981.

TABLE 3

FY 1978--1982 PROGRAM IMPROVEMENT PROJECT
FUNDING BY STATE AND LEGISLATIVE SECTION

State	SECTION 131		SECTION 132		SECTION 133		TOTAL	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
Alabama	-	-	22	162,188	2	61,000	24	223,188
Alaska	3	26,117	2	17,321	9	159,902	14	203,340
American Samoa	-	-	-	-	-	-	-	-
Arizona	19	222,261	11	206,095	22	238,058	52	666,414
Arkansas	25	444,468	27	457,858	1	12,520	53	914,846
California	34	2,307,716	13	610,354	45	1,749,101	92	4,667,171
Colorado	19	306,933	10	220,728	2	85,000	31	612,661
Connecticut	43	433,501	44	910,825	18	383,543	105	1,727,869
Delaware	13	225,798	3	22,697	3	45,328	19	293,823
District of Columbia	4	315,273	-	-	-	-	4	315,273
Florida	67	2,378,459	23	372,521	31	1,760,563	121	4,511,543
Georgia	46	1,433,210	1	17,500	46	1,156,726	93	2,607,436
Guam	-	-	1	2,159	1	19,702	2	21,861
Hawaii	3	29,300	3	25,410	3	16,500	9	71,210
Idaho	11	52,172	16	223,668	4	25,967	31	301,807
Illinois	129	7,099,678	87	3,628,829	71	2,452,784	287	11,181,091
Indiana	59	2,345,420	43	1,413,096	54	1,444,214	156	5,202,730
Iowa	24	801,803	13	509,495	30	315,764	67	1,627,062
Kansas	34	377,424	24	395,727	52	428,195	110	1,201,346
Kentucky	33	700,501	69	1,517,653	29	282,710	131	2,500,864
Louisiana	15	301,347	19	484,159	24	455,625	58	1,241,131
Maine	1	10,338	13	185,600	1	7,850	15	203,788
Maryland	31	218,593	33	299,961	53	1,735,077	119	2,253,531
Massachusetts	13	630,389	63	2,136,361	7	623,105	83	3,389,855
Michigan	8	304,743	1	54,991	15	1,412,782	24	1,772,516
Minnesota	29	1,151,188	7	113,756	45	462,043	81	1,726,987
Mississippi	11	735,177	8	137,070	7	1,808,118	26	2,680,365
Missouri	55	504,857	11	303,778	6	861,467	72	1,670,102
Montana	13	84,938	14	238,047	9	69,728	36	392,713

(continued)

TABLE 3 (continued)
FY 1978–1982 PROGRAM IMPROVEMENT PROJECT
FUNDING BY STATE AND LEGISLATIVE SECTION

State	SECTION 131		SECTION 132		SECTION 133		TOTAL	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
Nebraska	7	98,580	3	15,838	10	152,064	20	266,482
Nevada	-	-	27	421,511	-	-	27	421,511
New Hampshire	3	18,674	3	26,000	3	34,000	9	78,674
New Jersey	40	693,538	85	1,518,088	58	780,963	183	2,992,589
New Mexico	10	277,524	7	390,521	6	270,115	23	938,160
New York	77	3,083,638	11	400,386	88	3,992,663	176	7,476,687
North Carolina	14	426,762	2	6,022	1	18,621	17	451,405
North Dakota	12	54,358	23	134,404	25	167,732	60	356,494
Ohio	-	-	165	5,382,028	-	-	165	5,382,028
Oklahoma	15	104,752	6	99,631	31	672,800	52	877,183
Oregon	22	271,488	23	438,261	19	213,760	64	923,509
Pennsylvania	83	1,886,804	93	1,948,304	138	2,279,897	314	6,115,005
Puerto Rico	-	-	-	-	1	94,528	1	94,528
Rhode Island	3	1,444	13	159,842	1	685	17	161,971
South Carolina	33	237,333	4	25,000	45	243,080	82	505,413
South Dakota	4	46,475	10	329,385	9	54,150	23	430,010
Tennessee	7	250,492	60	1,679,197	11	795,891	78	2,725,580
Texas	90	2,950,655	120	4,293,935	41	6,183,558	251	13,428,148
Utah	8	99,934	10	116,346	6	32,302	24	248,582
Vermont	10	101,468	7	85,268	1	3,800	18	190,536
Virgin Islands	-	-	-	-	-	-	-	-
Virginia	25	751,664	15	211,739	52	1,295,382	92	2,258,785
Washington	19	139,806	15	113,908	73	305,583	107	559,297
West Virginia	16	247,472	27	332,910	54	353,912	97	934,294
Wisconsin	37	824,565	18	353,319	73	1,107,996	128	2,285,880
Wyoming	10	80,170	37	211,940	4	60,661	51	352,771
TOTAL	1,287	34,089,000	1,365	33,361,630	1,342	37,187,515	3,994	104,638,145

TABLE 4

FY 1978–1982 STATE PROGRAM IMPROVEMENT PROJECTS BY LEGISLATIVE SECTION

Section Number	FY 1978		FY 1979		FY 1980		FY 1981		FY 1982		5-Year Total	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
131	268	7,281,868	247	5,961,480	282	8,096,368	283	7,987,238	207	4,762,046	1,287	34,089,000
132	276	6,348,605	288	6,801,972	250	7,035,849	326	7,333,862	225	5,841,342	1,365	33,361,630
133	191	5,274,686	275	7,395,276	313	8,382,249	300	9,308,248	263	6,827,056	1,342	37,187,515
TOTAL	735	18,905,159	810	20,158,728	845	23,514,466	909	24,629,348	695	17,430,444	3,994	104,638,145

Curriculum Development (Section 133)

1. The 1,342 projects conducted under this section received $37,187,515 obligated funds, an average of $27,711.

2. The number of projects ranged from 191 in FY 1978 to 313 in FY 1980.

3. The total amount of annual funding ranged from $5,274,686 in FY 1978 to $9,308,248 in FY 1981.

4. The number of projects in FY 1982 decreased by 12 percent from FY 1981 and the amount of obligated funds decreased by 27 percent from FY 1981.

Data for individual states or regions may be extracted from Table 4 for preparation of similar charts for graphic comparison of funding and projects or comparisons with other states, regions, or all states.

Figure 1 is a graphic representation of the number of projects funded and the total funds obligated during each of the five fiscal years.

Recipients of Project Funding

Table 5 is the distribution to different types of organizations which received funding for program improvement projects in each of the five fiscal years. Noteworthy findings reveal the following:

1. The average funding for projects conduoted by four-year colleges/universities ($31,492) and research centers ($36,556) was significantly larger than projects conducted by two-year colleges ($20,636) and local education agencies ($22,446).

2. The number of projects conducted by four-year colleges and universities increased from FY 1978 through FY 1981, while the number of projects conducted by local education agencies decreased slightly.

Table 6 shows the percent of the total projects conducted and the percent of total funds by type of institution or agency. Principal findings are twofold:

1. Four-year colleges and universities and two-year junior colleges, technical schools, and community colleges received 48 percent of the funding to conduct projects.

2. Four-year colleges and universities and research/development/curriculum centers on the average conducted projects with more funding (as evidenced by the percent of projects versus percent of funding).

Table 7 shows the recipients of project funding by each of the three legislative sections. Noteworthy findings are listed below:

Key: _____section 131 (research)
- - - - - - - -section 132 (exemplary & innovative)
. . . . . .section 133 (curriculum development)

*Total number of projects funded by each legislative section by fiscal year appear in parentheses.

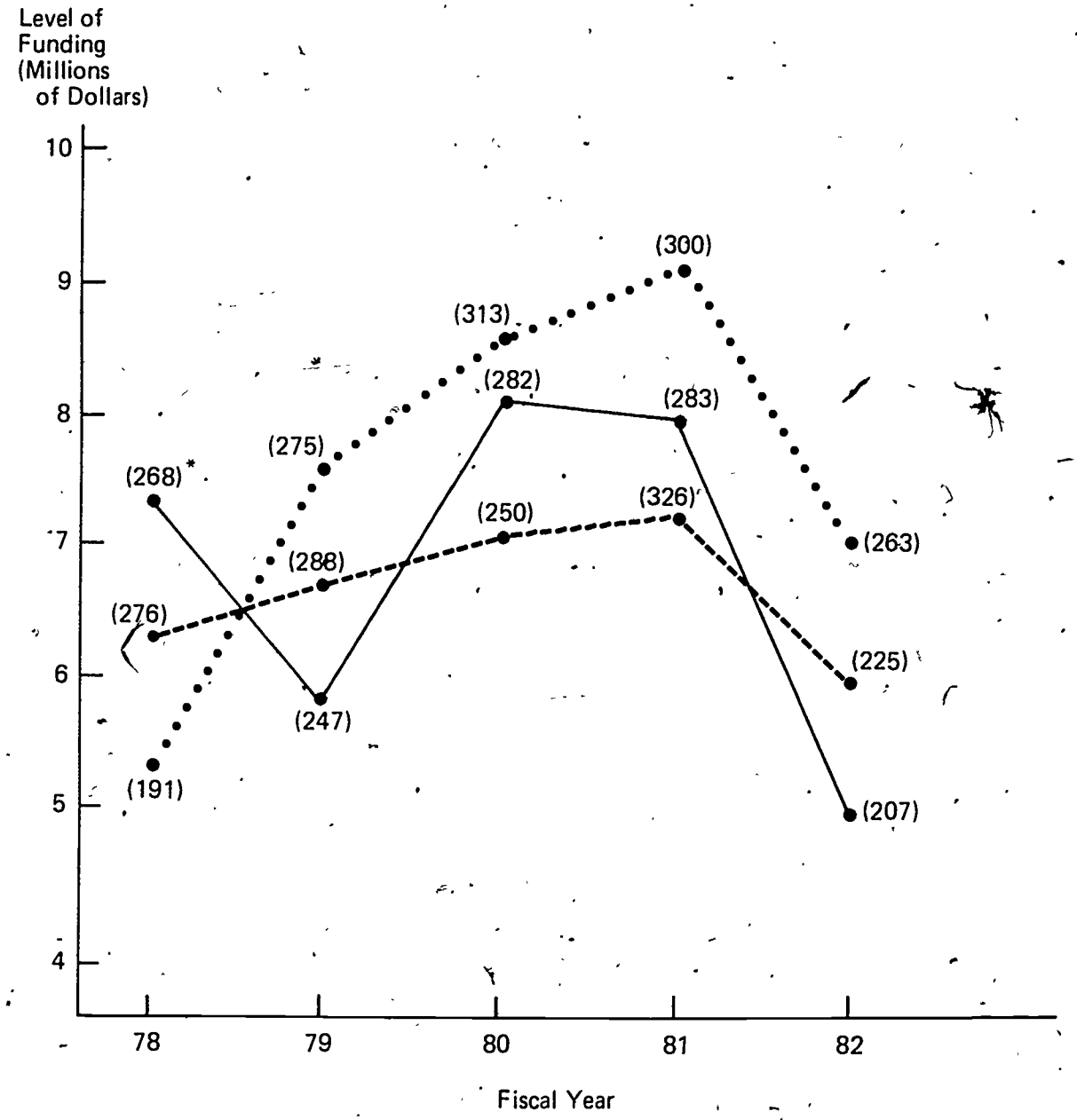

Figure 1. Summary of Program Improvement Funding by Legislative Section.

TABLE 5

RECIPIENTS OF PROJECT FUNDING BY FISCAL YEAR

Type of Organization	FY 1978		FY 1979		FY 1980		FY 1981		FY 1982		5 Yr Total	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
4-Year College/ Universities	217	6,988,224	243	7,331,271	285	8,969,379	327	9,648,383	190	6,805,785	1,262	39,743,042
Local Education Agencies	288	6,151,978	277	6,737,366	279	6,299,534	243	5,691,818	238	4,860,842	1,325	29,741,538
2-Year Colleges(Jr. College/ Technical School/Community College)	91	1,930,514	135	2,137,782	79	2,314,112	103	2,583,249	100	1,517,831	508	10,483,488
Research/Development/ Curriculum Organizations	58	1,738,225	42	1,667,983	55	1,947,631	59	2,414,124	43	1,627,118	257	9,395,081
Intermediate Education Agencies	27	613,645	32	774,727	38	1,327,714	63	2,184,880	37	985,128	197	5,886,094
State Education Agencies	34	1,148,251	46	863,521	53	842,362	87	1,403,313	60	934,839	280	5,192,286
Business/Industry/Labor	8	114,267	13	325,584	40	1,384,160	16	402,534	14	482,422	91	2,708,967
Public Sector Organizations	4	39,500	3	72,502	7	293,951	6	178,860	8	178,686	28	763,499
Individuals	7	165,555	12	173,212	4	29,321	2	73,000	5	37,793	30	478,881
Professional Associations	-	-	3	32,850	-	-	-	-	-	-	3	32.850
Other (not identified)	1	15,000	4	41,930	5	106,302	3	49,187	-	-	13	212.419
TOTALS	735	18,905,159	810	20,158,728	845	23,514,466	909	24,629,348	695	17,430,444	3,994	104,638,145

TABLE 6

FY 1978–1982 RECIPIENTS OF PROJECT FUNDING

Type of Organization	Percent of Projects	Percent of Funding
4-Year Colleges/Universities	31.6	38.0
Local Education Agencies	33.2	28.4
2-Year College (Jr. College/ Technical School/Community College)	12.7	10.0
Research/Development/ Curriculum Organizations	6.4	9.0
Intermediate Education Agencies	4.9	5.6
State Education Agencies	7.0	5.0
Business/Industry/Labor	2.3	2.6
Public Sector Organizations	.7	.7
Individuals	.8	.5
Professional Associations	.1	.03
Other (not identified)	.3	.17
TOTALS	100.0	100.0

TABLE 7

FY 1978–1982 RECIPIENTS OF PROJECT FUNDING BY LEGISLATIVE SECTION

Type of Organization	SECTION 131 (research)		SECTION 132 (exemplary)		SECTION 133 (curriculum)		TOTAL	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
4-Year Colleges/Universities	549	15,415,469	224	5,737,890	489	18,589,683	1,262	39,743,042
Local Education Agencies	231	4,941,950	771	18,435,574	323	6,364,014	1,325	29,741,538
2-Year College (Jr. College/ Technical School/Community College)	128	3,099,310	170	3,667,610	210	3,716,568	508	10,483,488
Research/Development/ Curriculum Organizations	138	5,251,946	27	744,004	92	3,399,131	257	9,395,081
Intermediate Education Agencies	50	1,286,368	87	2,615,660	60	1,984,066	197	5,886,094
State Education Agencies	125	2,256,001	40	854,345	115	2,081,940	280	5,192,286
Business/Industry/Labor	36	1,291,117	17	599,297	38	818,553	91	2,708,967
Public Sector Organizations	11	231,684	13	430,980	4	100,835	28	763,499
Individuals	14	171,538	12	257,018	4	50,325	30	478,881
Professional Associations	1	14,850	-	-	2	18,000	3	32,850
Other (not identified)	4	128,767	4	19,252	5	64,400	13	212,419
TOTALS	1,287	34,089,000	1,365	33,361,630	1,342	37,187,515	3,994	104,638,145

1. Most projects conducted by four-year colleges and universities were funded under Section 131 (research) and Section 133 (curriculum development).

2. Most projects conducted by local education agencies were funded under Section 132 (exemplary and innovative).

Target Populations

Table 8 displays the number of projects and their funding directed at various target groups in each of the five fiscal years. Important findings are as follows:

1. The average amount of funding per project ranged by target population from a low of $16,426 for the teacher educator target group to $30,848 for research and development personnel.

2. The ratio of the number of projects and the amount of funds among target populations remained about the same over the five-year period.

Table 9 shows the percent of the total projects conducted and the percent of total funds by target population. Noteworthy findings are cited here:

1. The focus of 58.7 percent of the project funding and 56.2 percent of the number of projects were on teachers and coordinators.

2. Projects directed toward business/industry/labor, parents/community representatives, and institutional persons categories received less than 1.5 percent of the funding for all categories.

3. Only 1.2 percent of the projects are targeted at teacher educators, even though four-year colleges and universities conduct 38 percent of the projects.

Table 10 displays the number of projects and amount of funding directed at each target population by legislative section. Important findings are three in number:

1. Sixty-two percent of the projects directed toward local administrators and 84 percent of the projects directed toward state administrators and supervisors were funded from Section 131 (research).

2. Two-thirds of the student-oriented projects were funded from Section 132 (exemplary and innovative).

3. Forty-eight percent of the projects directed toward teachers and coordinators were funded from Section 133 (curriculum development).

TABLE 8

TARGET POPULATION BY FISCAL YEAR

Target Population	FY 1978		FY 1979		FY 1980		FY 1981		FY 1982		5 Yr Total	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
Teachers/Coordinators	495	10,027,346	497	12,801,858	468	13,659,159	492	14,295,038	381	10,667,179	2,243	61,450,580
Students	86	1,790,992	100	2,113,169	114	3,184,005	101	2,885,133	82	1,655,971	483	11,629,270
Local Administrators	96	1,920,041	103	2,312,749	90	1,976,135	93	2,475,568	75	1,630,934	457	10,315,427
Research & Development Personnel	48	2,463,342	25	773,322	57	1,757,038	64	1,603,881	69	1,515,458	263	8,113,041
State Administrators/ Supervisors	48	1,592,830	47	1,136,200	56	1,767,254	91	2,115,240	30	873,424	272	7,484,948
Guidance Personnel	33	743,516	19	549,592	22	482,898	21	404,986	25	388,093	120	2,569,085
Teacher Educators	9	207,822	7	261,617	16	193,917	24	245,132	17	290,679	73	1,199,167
Business/Industry/Labor	-	-	2	34,633	4	81,155	12	297,685	3	225,908	21	639,381
Parents/Community Representatives	6	32,870	2	45,073	6	137,799	6	209,542	7	114,564	27	539,848
Institutional (Correctional) Persons	1	29,520	5	64,463	5	109,454	3	83,213	3	43,234	17	329,884
Other (population not identified or multiple populations)	3	96,880	3	66,052	7	165,652	2	13,930	3	25,000	18	367,514
TOTALS	735	18,905,159	810	20,158,728	845	23,514,466	909	24,629,348	695	17,430,444	3,994	104,638,145

TABLE 9

FY 1978–1982 TARGET POPULATION FUNDING

Target Population	Percent of Projects	Percent of Funding
Teachers/Coordinators	56.2	58.7
Students	12.1	11.1
Local Administrators	11.4	9.9
Research & Personnel Development	6.6	7.8
State Administrators/Supervisors	6.8	7.0
Guidance Personnel	3.0	2.5
Teacher Educators	1.8	1.2
Business/Industry/Labor	.5	.6
Parent/Community Representatives	.7	.5
Institutional (Correctional) Persons	.4	.3
Other (Population not identified or multiple populations)	.5	.4
TOTALS	100.0	100.0

TABLE 10
FY 1978–1982 TARGET POPULATION BY LEGISLATIVE SECTION

	SECTION 131 (research)		SECTION 132 (exemplary)		SECTION 133 (curriculum)		TOTAL	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
Teachers/Coordinators	417	11,650,536	744	18,775,575	1,082	31,024,469	2,243	61,450,580
Students	80	1,978,406	322	8,019,385	80	1,631,479	483	11,629,270
Local Administrators	284	6,048,582	127	3,041,907	46	1,224,938	457	10,315,427
Research & Development Personnel	167	5,656,181	28	617,262	68	1,839,598	263	8,113,041
State Administrators/ Supervisors	230	6,304,816	24	519,946	18	660,186	272	7,484,948
Guidance Personnel	44	1,001,334	68	1,384,243	8	183,508	120	2,569,085
Teacher Educators	37	845,042	12	154,814	24	199,311	73	1,199,167
Business/Industry/Labor	5	28,343	12	373,165	4	237,873	21	639,381
Parents/Community Representatives	10	245,700	12	228,158	5	65,990	27	539,848
Institutional (Correctional) Persons	5	77,016	10	233,245	2	19,623	17	329,884
Other (population not identified or multiple populations)	7	253,044	6	13,930	5	100,540	18	367,514
TOTAL	1,287	34,089,000	1,365	33,361,630	1,342	37,187,515	3,994	104,638,145

Project Outcomes

Table 11 shows the number of projects and their related funding by type of outcome for each of the five fiscal years. Primary findings are as follows:

1. Most items (outcomes) followed the general trend of peak funding during FY 1981.

2. The number of projects devoted to materials distribution has increased annually and is one of the few categories of activities remaining stable during FY 1982, a time of reduced funds devoted to research, exemplary and innovative, and curriculum development activites.

3. Nearly forty-two percent of the total funds were allocated to printed instructional materials (23.4 percent), career and vocational counseling (11.1 percent), and information systems (7.2 percent).

Table 12 shows the percent of projects and the percent of funding directed at the various categories of outcomes during FY 1978 through FY 1982. The main findings are these:

1. Printed instructional materials were produced by 22.4 percent of the projects and received 23.4 percent of the funds.

2. Twelve outcome categories each received less than one percent of the total funds.

3. Information systems and materials distribution projects usually received more funding than other types of projects (as evidenced by the percent of projects versus the percent of funding). The percent of funding is considerably higher in both cases.

Table 13 displays the number of projects and amount of funding for the various outcome categories by legislative section. Important findings are cited below:

1. Slightly over 60 percent of the curriculum-related activity was funded from Section 133 (curriculum development).

2. Nearly 88 percent of the career and vocational counseling projects were funded from Section 132 (exemplary and innovative).

3. Eighty-two percent of the planning projects were funded from Section 131 (research).

4. Eighty-seven percent of the projects classified as research were funded from Section 131 (research).

5. Over 78 percent of the training programs were funded from Section 132 (exemplary and innovative).

TABLE 11

OUTCOMES OF PROJECTS BY FISCAL YEAR

OUTCOMES	FY 1978		FY 1979		FY 1980		FY 1981		FY 1982		5 Yr Total	
	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No of Projects	Amount
Printed Instructional Materials	163	4,006,809	227	6,537,631	227	6,866,751	142	3,963,029	134	3,094,448	893	24,468,668
Career/Vocational Counseling	79	2,589,331	98	2,490,801	67	2,409,617	96	2,496,533	76	1,678,570	416	11,664,852
Information Systems	40	2,113,559	27	1,420,172	23	1,155,162	38	1,885,418	18	927,880	146	7,502,191
Training Programs	45	805,107	62	1,149,685	24	561,224	88	2,537,813	71	1,684,876	290	6,738,705
Curriculum Guide	31	1,678,586	26	596,059	60	1,650,282	67	1,614,916	68	1,166,641	252	6,706,484
Inservice Education	27	530,985	28	778,931	58	1,244,748	62	1,416,734	52	1,220,870	227	5,192,268
Non-Print Instructional Materials	22	740,642	32	430,653	35	1,124,477	42	1,472,472	38	1,161,408	169	4,929,652
Materials Distribution	14	493,266	14	522,494	17	663,568	31	1,463,319	31	1,595,600	107	4,738,247
Evaluation	44	745,467	46	1,027,288	45	933,031	37	1,004,134	27	639,067	199	4,348,987
Model (Exemplary)	32	757,272	34	975,400	43	1,151,919	37	1,088,751	8	349,752	154	4,323,094
Planning	37	787,088	29	685,933	62	1,532,883	34	764,038	22	526,105	184	4,296,047
Handbook/Guide	42	743,318	27	704,881	57	1,169,298	60	1,034,367	30	536,697	216	4,188,561
Research	34	476,664	37	934,617	13	361,759	62	1,379,499	49	1,009,897	195	4,162,436
Needs Assessment	21	443,759	19	437,136	29	707,741	36	849,038	15	115,606	120	2,553,280
Articulation	13	535,071	33	570,427	6	119,735	8	167,231	13	624,643	73	2,017,107
Job Placement	14	321,405	7	183,772	10	201,018	4	115,653	4	140,188	39	962,036
Follow-up	12	134,624	8	145,436	7	43,814	13	451,725	7	171,236	47	946,835
Workshops	15	184,554	25	194,427	10	256,048	9	115,934	3	127,713	62	878,676
Analysis	10	197,555	6	150,913	8	90,345	4	77,535	4	86,399	32	602,747
RCU Operation (Admin.)	1	112,911	-	-	1	149,603	2	135,913	1	164,562	5	562,989
Feasibility Study	10	138,410	4	62,276	6	115,798	10	178,874	4	26,700	34	522,058
Community Involvement	12	80,282	3	66,531	5	126,287	3	36,855	8	205,305	31	515,260
Consortium	2	30,000	3	27,500	7	208,200	5	115,264	4	49,832	21	430,796
Employment Services	3	78,300	-	-	6	189,829	6	88,594	4	56,553	19	413,276
Teacher Aide	3	60,996	13	39,285	-	-	-	-	-	-	16	100,281
Literature Review	2	18,000	-	-	3	38,142	2	24,700	1	2,500	8	83,342
Other (e.g., staffing, public relations)	7	101,198	2	26,480	16	443,187	11	151,009	3	67,396	39	789,270
TOTAL	735	18,905,159	810	20,158,728	845	23,514,466	909	24,629,348	695	17,430,444	3,994	104,638,145

TABLE 12

FY 1978–1982 OUTCOMES OF PROJECTS

Outcomes	Percent of Projects	Percent of Funding
Printed Instructional Materials	22.36	23.38
Career Vocational Counseling	10.42	11.15
Information Systems	3.66	7.17
Training Programs	7.26	6.44
Curriculum Guide	6.31	6.41
Inservice Education	5.68	4.96
Non-Print Instructional Materials	4.23	4.23
Materials Distribution	2.68	4.53
Evaluation	4.98	4.15
Model	3.86	4.13
Planning	4.61	4.11
Handbook/Guide	5.41	4.00
Research	4.88	3.98
Needs Assessment	3.00	2.44
Articulation	1.83	1.93
Job Placement	.98	.92
Follow-up	1.18	.90
Workshops	1.55	.84
Analysis	.80	.58
RCU Operation	.13	.54
Feasibility Study	.85	.50
Community Involvement	.78	.49
Consortium	.53	.41
Employment Services	.48	.39
Teacher Aids	.40	.10
Literature Review	.20	.08
Other (e.g., staffing, public relations)	.98	.75
TOTALS	100.0	100.0

TABLE 13

FY 1978–1982 OUTCOMES OF PROJECTS BY LEGISLATIVE SECTION

Outcomes	SECTION 131 (research)		SECTION 132 (exemplary)		SECTION 133 (curriculum)		TOTAL	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
Printed Instructional Materials	140	4,294,751	157	3,304,089	597	16,869,828	893	24,468,668
Career/Vocational Counseling	34	1,186,765	364	9,986,045	19	492,042	416	11,664,852
Information Systems	57	3,227,743	43	1,727,066	46	2,547,382	146	7,502,191
Training Programs	22	469,267	227	5,285,062	41	984,376	290	6,738,705
Curriculum Guide	43	2,099,193	26	611,090	183	3,996,201	252	6,706,484
Inservice Education	51	1,381,534	97	2,229,831	79	1,580,903	227	5,192,268
Non-Print Instructional Materials	27	457,306	66	1,319,089	76	3,153,257	169	4,929,652
Materials Distribution	33	1,119,848	18	622,116	56	2,996,283	107	4,738,247
Evaluation	147	3,281,924	28	698,083	24	268,980	199	4,348,987
Model (Exemplary)	53	2,431,154	90	1,672,394	11	219,546	154	4,323,094
Planning	151	3,650,938	27	495,667	6	149,442	184	4,296,047
Handbook/Guide	91	2,286,665	43	757,681	82	1,144,215	216	4,188,561
Research	170	3,599,012	13	192,523	13	370,901	195	4,162,436
Needs Assessment	88	1,574,989	17	341,821	16	636,470	120	2,553,280
Articulation	21	397,866	21	826,893	30	792,348	73	2,017,107
Job Placement	15	413,741	23	545,055	1	3,240	39	962,036
Follow-up	42	857,159	1	28,055	4	61,621	47	946,835
Workshops	11	203,795	36	316,943	15	357,938	62	878,676
Analysis	26	503,896	3	39,592	3	59,259	32	602,747
RCU Operation (Admin.)	5	562,989	-	-	-	-	5	562,989
Feasibility Study	20	363,117	10	134,077	4	24,864	34	522,058
Community Involvement	8	23,016	20	472,194	2	20,050	31	515,260
Consortium	2	44,100	3	116,600	15	270,096	21	430,796
Employment Services	7	135,150	11	274,126	1	4,000	19	413,276
Teacher Aide	2	55,996	1	5,000	13	39,285	16	100,281
Literature Review	3	7,300	3	63,538	2	12,504	8	83,342
Other (e.g., staffing, public relation)	18	344,045	17	392,887	3	52,338	39	789,270
TOTAL	1,287	34,089,000	1,365	33,361,630	1,342	37,187,515	3,994	104,638,145

Project Priorities

Table 14 depicts the number of projects and related funding by program priority or problem area in each of the five fiscal years. Noteworthy findings are as follows:

1. The largest number of projects relating to the handicapped (77) occurred in FY 1981 while the largest number of projects relating to the disadvantaged (51) occurred in FY 1979.

2. The highest priority for numbers of projects and the amount of funding was curriculum. Investment steadily increased during FY 1978 through FY 1981 and retained its relative standing for FY 1982.

3. The investment in dissemination of information and educational products has been relatively stable over the five-year period.

4. Transition from school to work (9 projects), native Americans (8 projects), inner-city education (4 projects), and aging (7 projects) received little attention.

Table 15 shows the percent of projects and the percent of funding directed toward the various priorities during FY 1978 through FY 1982. Noteworthy findings reveal the following:

1. Over 33 percent of the projects and nearly 35 percent of the funds were specifically directed toward curriculum development.

2. The handicapped (7.5 percent), evaluation (6.5 percent), career development (11.2 percent), and dissemination of information and products (9.0 percent) were the only other priorities that received over five percent of the total funds.

3. Projects that address administration of vocational education, adult education, evaluation, community/education linkage, and teacher education were usually funded below the average level, while projects dealing with bilingual vocational education, handicapped, and dissemination of information and products were funded above the average level (see comparison of percentage of projects vs. percentage of funding).

Table 16 shows the number of projects and related funding by program priority or problem area for each of the legislative sections. Primary findings are four in number:

1. Over two-thirds of the projects addressing the administration of vocational education were funded under Section 131 (research).

2. Fifty-three percent of the projects directed toward the handicapped and disadvantaged were funded from Section 132 (exemplary and innovative).

TABLE 14

PRIORITIES OF PROJECTS BY FISCAL YEAR

PRIORITIES	FY 1978		FY 1979		FY 1980		FY 1981		FY 1982		5 Yr Total	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
Curriculum	208	6,353,036	270	7,171,796	275	7,694,161	313	8,171,79[illegible]	260	7,106,480	1,326	36,497,265
Career Development	104	2,727,931	99	2,593,889	82	2,544,536	94	2,303,1[illegible]	76	1,504,336	455	11,673,868
Dissemination of Information Products	42	1,908,960	33	1,229,974	46	2,060,847	43	2,453,809	40	1,799,158	204	9,452,74[illegible]
Handicapped	45	1,341,134	62	1,580,348	47	1,617,509	77	2,384,6[illegible]	40	942,410	271	7,866,242
Evaluation	74	1,062,415	87	1,775,439	54	1,352,663	75	1,909,055	44	731,782	334	6,831,[illegible]
Administration of Vocational Education	38	[illegible]	40	835,143	45	967,398	47	968,[illegible]	41	1,196,979	[illegible]	[illegible]
Disadvantaged	23	806,385	51	1,506,926	16	581,304	29	687,[illegible]	11	320,7[illegible]1	130	3,90[illegible]
Planning and Policy Formation	24	1,177,7[illegible]	12	233,952	40	995,820	14	[illegible]	7	107,139	97	3,069,575
Personnel Development	27	2[illegible],854	33	273,830	44	706,25[illegible]	32	53[illegible]	45	945,041	181	2,737,620
Industry Education Linkage	[illegible]	312,149	18	533,34[illegible]	26	6[illegible],023	24	657,5[illegible]	15	533,527	104	2,678,391
Sex Equity	23	405,349	24	663,984	22	689,672	18	252,643	20	281,223	107	2,312,872
Bilingual Vocational Education	11	[illegible]	11	315,084	17	503,202	17	688,6[illegible]	10	317,764	66	2,20[illegible],807
Technological Problems	9	139,336	14	202,162	24	334,112	19	619,[illegible]	6	73,407	72	1,366,389
Job Placement	20	437,037	6	198,884	13	295,054	9	168,[illegible]	9	224,001	57	1,323,005
Teacher Education	8	67,076	12	246,809	14	189,866	33	353,034	15	320,706	82	1,177,511
Rural Education	7	67,686	7	189,123	7	171,232	14	338,[illegible]	11	214,812	46	981,262
Social and Economic Problems	2	38,600	5	165,004	3	32,058	7	387,34[illegible]	5	96,798	22	719,800
Adult Education	8	188,969	4	142,541	10	159,341	8	199,[illegible]	1	2,500	31	692,479
Community/Education Linkage	16	160,650	4	28,731	5	172,965	5	39,4[illegible]	8	197,759	38	599,590
Displaced Homemakers	4	73,850	3	16,386	3	65,906	2	237,1[illegible]	3	81,709	15	475,015
Basic Skills	2	29,110	6	64,818	3	42,361	6	65,3[illegible]	14	128,351	31	330,038
Gifted and Talented	1	9,000	1	13,137	6	84,444	8	135,[illegible]	1	14,625	17	256,338
Accountability (Reporting)	2	35,460	2	47,800	6	120,240	3	24,2[illegible]	1	17,222	14	244,928
Transition from Education to Work	4	103,221	-	-	1	47,287	3	51,[illegible]	1	34,579	9	236,542
Native Americans	1	12,404	3	45,847	3	168,363	1	1,3[illegible]	-	-	8	227,964
Aging	-	-	1	1,500	1	50,000	2	35,75[illegible]	3	36,000	7	123,280
Inner City Education	1	23,977	1	44,430	2	36,309	-	-	-	-	4	104,716
Other (e.g., research priority setting)	10	168,069	1	17,843	30	1,189,542	6	403,8[illegible]	8	201,415	55	1,980,691
TOTAL	735	18,905,159	810	20,158,728	845	23,514,466	909	24,629,3[illegible]	695	17,430,444	3,994	104,638,145

TABLE 15

FY 1978–1982 PRIORITIES ADDRESSED BY PROJECTS

Priorities	Percent of Projects	Percent of Projects
Curriculum	33.20	34.88
Career Development	11.39	11.16
Dissemination of Information Products	5.11	9.03
Handicapped	6.79	7.52
Evaluation	8.36	6.53
Administration of Vocational Education	5.28	4.37
Disadvantaged	3.25	3.73
Planning and Policy Formation	2.43	2.93
Personnel Development	4.53	2.62
Industry & Education Linkage	2.60	2.56
Sex Equity	2.68	2.21
Bilingual Vocational Education	1.65	2.11
Technological Problems	1.80	1.31
Job Placement	1.43	1.26
Teacher Education	2.05	1.13
Rural Education	1.15	.94
Social and Economic Problems	.55	.69
Adult Education	.78	.66
Community/Education Linkage	.95	.57
Displaced Homemakers	.38	.45
Basic Skills	.78	.32
Gifted and Talented	.43	.24
Accountability	.35	.23
Transition from Education to Work	.23	.23
Native Americans	.20	.22
Aging	.18	.12
Inner City Education	.10	.10
Other (e.g., research priority setting)	1.38	1.89
TOTALS	100.0	100.0

TABLE 16

FY 1978–1982 PRIORITIES OF PROJECTS BY LEGISLATIVE SECTION

Priorities	SECTION 131 (research)		SECTION 132 (exemplary)		SECTION 133 (curriculum)		TOTAL	
	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding	No. of Projects	Amt. of Funding
Curriculum	200	6,734,163	241	4,706,843	885	25,056,259	1,326	36,497,265
Career Development	56	1,254,272	371	10,096,913	28	322,683	455	11,673,868
Dissemination of Information/Products	91	4,570,555	39	1,335,926	74	3,546,267	204	9,452,748
Handicapped	81	2,513,359	144	4,310,381	46	1,242,502	271	7,866,242
Evaluation	273	5,848,835	38	529,893	23	452,656	334	6,831,384
Administration of Vocational Education	145	3,082,334	42	1,175,885	24	312,639	211	4,570,858
Disadvantaged	30	807,062	70	2,031,631	30	1,064,275	130	3,902,968
Planning and Policy Formation	79	2,650,062	11	147,881	7	271,632	97	3,069,575
Personnel Development	57	905,500	66	773,681	58	1,058,439	181	2,737,620
Industry/Education Linkage	32	795,056	60	1,314,820	12	568,515	104	2,678,391
Sex Equity	53	949,150	36	570,057	18	793,664	107	2,312,871
Bilingual Vocational Education	9	138,649	37	1,403,251	20	660,907	66	2,202,807
Technological Problems	17	423,046	25	394,067	30	551,276	72	1,368,389
Job Placement	19	387,135	32	797,745	6	138,125	57	1,323,005
Teacher Education	40	793,142	17	257,205	25	127,164	82	1,177,511
Rural Education	4	19,915	36	936,062	6	25,285	46	981,262
Social and Economic Problems	8	166,919	8	211,827	6	341,054	22	719,800
Adult Education	11	349,840	12	235,514	8	107,125	31	692,479
Community/Education Linkage	14	295,226	21	274,314	3	30,050	38	599,590
Displaced Homemakers	11	185,581	3	80,484	1	208,950	15	475,015
Basic Skills	14	168,259	11	127,739	6	34,040	31	330,038
Gifted and Talented	5	50,633	12	205,705	-	-	17	256,338
Accountability (Reporting)	8	120,114	5	75,888	1	48,926	14	244,928
Transition from Education to Work	1	700	5	145,022	3	90,820	9	236,542
Native Americans	1	1,350	6	210,114	1	16,500	8	227,964
Aging	3	33,780	2	84,000	2	5,500	7	123,280
Inner City Education	-	-	3	74,407	1	30,309	4	104,716
Other (e.g., research priority setting)	25	809,654	12	450,005	18	721,032	55	1,980,691
TOTAL	1,287	34,089,000	1,365	33,361,630	1,342	37,187,515	3,994	104,638,145

3. More than 81 percent of the projects related to career development were funded from Section 132 (exemplary and innovative).

4. Eighty-two percent of the evaluation projects were funded from Section 131 (research).

IN-DEPTH ANALYSIS OF CURRICULUM DEVELOPMENT

Over one-third of the 3,994 projects and funding ($104,638,145) for state-administered vocational education program improvement during the period FY 1978 through FY 1982 have been categorized as curriculum development. In addition to Section 133 projects, many abstracts categorized in other legislative sections show evidence of curriculum-related activity. This major emphasis on curriculum development as a program improvement activity, triggered closer scrutiny of individual abstracts to determine the kinds of activities undertaken.

Through a search of the program improvement database, abstracts for 2,846 projects funded under Section 133 (curriculum development), and any projects funded under Section 131 (research) and Section 132 (exemplary and innovative) that contained the terms curriculum, curriculum development, or instructional materials were retrieved.

Curriculum for vocational program areas, multiple program areas, specific jobs, multiple jobs, or miscellaneous curriculum activities had been proposed as curriculum development projects.

Curriculum was to be developed in some form for an unspecified job title in a program area (e.g., agriculture, business and office, distributive education) in 603 program improvement projects. Eighty (80) curriculum-related projects promised development of curriculum or related activities in two or more occupational program areas without identifying the specific jobs. Four hundred thirty-seven (437) state program improvement projects addressed specific jobs. One hundred forty-eight (148) specific jobs identified through the review of the project abstracts appear in Table 17.

Two job titles were examined to determine the nature of the activities proposed: auto mechanics (71 projects) and word processing (29 projects). Within the auto mechanics job title, 62 of the 71 projects were related to curriculum development, the remaining 9 projects were curriculum related (i.e., dissemination, competency testing, staff development). Twenty-eight (28) projects proposed development or revision of curriculum for general auto mechanics without identifying any particular facet of the job. The remaining 34 projects were distributed among about 20 specific aspects of auto mechanics (e.g., auto body, emission control, air conditioning, power trains, auto parts, alcohol fuels, etc.).

Within the word processor operator job title 23 of the 29 projects related to curriculum development. The other six projects related to the dissemination of word processing curriculum and establishing word processing resource centers. Curriculum was to be developed or revised for both the secondary and postsecondary education levels. Several projects proposed writing curriculum

TABLE 17

CURRICULUM ACTIVITY FOR SPECIFIC JOBS OR AREAS BY LEGISLATIVE SECTIONS

Job or Area[1]	Legislative Section 131 (Research)	132 (Exemp.)	133 (Curric.)	Total
Accountants/Accounting	3(2)[2]	7(7)	6(6)	16(15)
Agribusiness (Farm Manager)	5(4)	4(4)	19(16)	28(24)
Alcohol Fuels Production	-	-	2(2)	2(2)
Animal Husbandry	-	-	2(2)	2(2)
Aquaculture	-	-	3(3)	3(3)
Auctioneer	-	-	2(2)	2(2)
Audiovisual Equipment Repairer	-	-	1(1)	1(1)
Autobody Repairer	-	1(1)	8(6)	9(7)
Auto Mechanics	9(8)	9(6)	53(47)	71(62)
Bakers	-	1(1)	1(1)	2(2)
Bank Teller	1(1)	-	2(2)	3(3)
Biomedical	-	-	1(1)	1(1)
Business Law	1(0)	-	2(2)	3(2)
Business and Office Machine Repairer	-	-	2(2)	2(2)
Carpentry	9(8)	7(6)	19(15)	35(29)
Chemical Technician	-	-	4(4)	4(4)
Child Care/Development	7(6)	6(4)	18(18)	31(28)
Coal Gasification	-	1(1)	-	1(1)
Coal Miner/Mining	4(4)	-	2(2)	6(6)
Commercial Art	-	-	7(7)	7(7)
Computer Operator	-	-	1(1)	1(1)
Computer Programmer/Programming	4(3)	7(5)	11(9)	22(17)

NOTE: [1]The terminology used in the project abstracts.

[2]The first figure represents the total number of curriculum related projects identified. The figures in parentheses are the number of projects that related specifically to curriculum development.

TABLE 17 (continued)

Job of Area	Legislative Section 131 (Research)	132 (Exemp.)	133 (Curric.)	Total
Conservation	10(7)	6(6)	38(35)	54(50)
Construction Worker/Building Trades	6(6)	8(6)	23(22)	37(34)
Cooks	-	-	2(1)	2(1)
Copyfitter	-	-	1(1)	1(1)
Cosmetology	1(1)	2(2)	11(10)	14(13)
Criminology	1(0)	1(1)	2(1)	4(2)
Dairy Farmer	-	-	2(2)	2(2)
Day Care	-	2(1)	2(2)	4(3)
Data Processor	14(7)	13(9)	18(18)	45(35)
Dental Assistant(s)	1(1)	3(3)	12(11)	16(15)
Dental Hygienist(s)	-	1(1)	3(3)	4(4)
Dietetic Assistant	-	-	4(3)	4(3)
Dieticians/Nutritionists	-	-	2(1)	2(1)
Drafting	10(9)	3(3)	23(17)	36(29)
Diesel Mechanic	1(1)	2(2)	5(5)	8(8)
Electrician	3(3)	2(2)	4(3)	9(8)
Electronics Technician	1(1)	2(2)	9(7)	12(10)
Emergency Medical Technician	-	-	3(2)	3(2)
Energy Conservation	8(5)	5(5)	32(30)	45(42)
Energy Occupation/Management	-	1(1)	6(1)	7(2)
Family Life Education	1(1)	1(1)	10(10)	12(12)
Farm Equipment	1(1)	-	2(2)	3(3)
Fashion Merchandising Industry	3(3)	-	3(3)	6(6)
Feed Industry	-	-	1(1)	1(1)
Fire Fighter(s)	-	-	2(1)	2(1)
Floriculture	1(1)	2(0)	4(4)	7(5)
Fluid Mechanics	-	-	1(1)	1(1)
Food Service	5(4)	5(5)	25(18)	35(27)
Forestry	-	1(1)	2(2)	3(3)

TABLE 17 (continued)

Job or Area	Legislative Section 131 (Research)	132 (Exemp.)	133 (Curric.)	Total
Gemologist	2(2)	-	-	2(2)
Graphic Arts	1(1)	3(0)	20(16)	24(17)
Geriatrics	-	-	1(1)	1(1)
Health Assistant(s)	-	-	6(5)	6(5)
Health Care Technician	-	-	1(1)	1(1)
Heavy Equipment	1(1)	2(2)	3(3)	6(6)
Home Management	1(0)	-	4(4)	5(4)
Appliance Repairer	-	2(1)	5(5)	7(6)
Horticulturist	5(4)	6(4)	20(19)	31(27)
Hospitality Worker	1(1)	3(3)	3(2)	7(6)
Hospital Ward Clerk/Hosp. Personnel	-	-	4(4)	4(4)
Hotels	1(1)	-	2(2)	3(3)
Sewing Machine Operator/ Sewing Instruction	-	-	3(3)	3(3)
Interior Design	-	-	2(2)	2(2)
Irrigation Technologist	-	-	1(1)	1(1)
Infant Care Aide	-	1(1)	-	1(1)
Laser Technologist, lasers	-	1(1)	2(2)	3(3)
Law Enforcement Officer/Police	2(1)	5(4)	4(1)	11(6)
Legal Secretary/Assistant para-legal	12(8)	3(1)	9(8)	24(18)
Machine Operator	-	-	4(4)	4(4)
Machine Repairer	3(3)	1(1)	12(9)	16(13)
Machinist	5(5)	-	-	5(5)
Marine Biologist	-	1(1)	2(2)	3(3)
Marine Technician	-	-	3(3)	3(3)
Masonry	1(0)	4(2)	10(9)	15(11)
Mass Media	-	7(0)	2(2)	9(2)
Meat Cutter	-	-	1(1)	1(1)
Medical Laboratory Technician	-	3(1)	2(2)	5(3)
Medical Records Technician	-	-	4(4)	4(4)

TABLE 17 (continued)

Job or Area	Legislative Section 131 (Research)	132 (Exemp.)	133 (Curric.)	Total
Medical Secretary	-	1(1)	-	1(1)
Medication Aide	-	-	1(1)	1(1)
Microcomputer Technician	-	1(1)	-	1(1)
Nurse Aide	1(1)	-	5(4)	6(5)
Nursing Home Administrator	-	-	1(1)	1(1)
Nursing Home Aide	-	-	2(2)	2(2)
Nurse (LPN/RN)	2(2)	5(3)	19(18)	26(23)
Ornamental Horticulturist	-	1(1)	7(7)	8(8)
Parent Educator/Education	-	1(1)	2(2)	3(3)
Personnel Management/Director	-	2(2)	3(3)	5(5)
Petroleum Technician	-	-	2(2)	2(2)
Photographer	3(1)	1(1)	9(7)	13(9)
Poultry Production Specialist	-	-	1(1)	1(1)
Power Technologist	1(0)	4(2)	2(1)	7(3)
Printer, Printing	2(1)	-	7(7)	9(8)
Power Equipment	-	2(2)	-	2(2)
Radiologic Technologist	1(1)	-	2(1)	3(2)
Real Estate	3(2)	1(1)	4(4)	8(7)
Recordkeeper	-	8(8)	8(8)	16(16)
Recreation Vehicle Repairer	-	-	4(3)	4(3)
Refrigeration Mechanic	2(2)	2(2)	3(2)	7(6)
Reprography	1(0)	1(1)	4(4)	6(5)
Respiratory Therapist	1(1)	-	4(4)	5(5)
Retail Business/Retailing	4(2)	-	7(6)	11(8)
Retail Security Guard	1(0)	-	-	1(0)
Sheet Metal	2(2)	-	4(4)	6(6)
Secretary	10(8)	9(8)	12(12)	31(28)
Sign Language	1(1)	2(2)	-	3(3)
Small Business	7(4)	7(6)	11(11)	25(21)
Small Engine Repair	-	-	5(5)	5(5)

TABLE 17 (continued)

Job or Area	Legislative Section 131 (Research)	132 (Exemp.)	133 (Curric.)	Total
Solar Energy Installer	-	-	2(2)	2(2)
Solar Heating Mechanic	-	-	1(1)	1(1)
Solar Radiation	5(4)	8(7)	17(14)	30(25)
Solar Technician	-	-	1(0)	1(0)
Steam Engineering	-	-	2(2)	2(2)
Stenographer	1(0)	2(2)	2(2)	5(4)
Surveyor	1(1)	-	1(1)	2(2)
Tax Preparer	-	-	3(3)	3(3)
Teacher Aide	1(1)	-	7(6)	8(7)
Tool and Die Maker	-	-	2(2)	2(2)
Tourism/Travel Manager	2(1)	5(3)	3(3)	10(7)
Truck Driver	1(1)	-	-	1(1)
TV Repairer	-	-	2(1)	2(1)
Typeset	1(1)	-	20(19)	21(20)
Typist	3(2)	5(4)	14(14)	22(20)
Therapy Technician	-	-	1(1)	1(1)
Videotape Production	1(1)	1(0)	-	2(1)
Welder/Welding	9(9)	5(4)	24(20)	38(33)
Wholesale Distributor	-	-	1(1)	1(1)
Word Processor Operator	4(1)	9(6)	16(16)	29(23)
Warehousing Specialist	-	1(1)	3(3)	4(4)

guidelines for word processing, including course outlines, competencies, learning activities, teaching aids, evaluation procedures and criteria, reference sources, and bibliographies. One project proposed translating or adapting English and Spanish word processing materials, another included the purchase of word processing equipment and materials, and two projects proposed development of Vocational-Technical Education Consortium of States (V-TECS) catalogs (Word Processing Specialist and Word Processing Administrative Support Secretary).

One hundred sixty-three (163) projects described curriculum that was to be developed for two or more specific jobs. Some of these job title combinations by legislative section are shown in Appendix B.

The bulk of the curriculum related projects (1,563) fell in a miscellaneous curriculum activities category. These projects encompass a wide assortment of activities that range from articulation to V-TECS membership.

The most prevalent project emphases are: (1) articulation; (2) basic skills; (3) bilingual vocational education; (4) career awareness/education; (5) competency based vocational education; (6) community/industry/education linkage; (7) dissemination and utilization of information and products; (8) inservice training; (9) needs assessment/program evaluation; and (10) special needs. There are approximately 200 other categories that make up this miscellaneous group.

CONCLUSIONS

Several conclusions about state-administered program improvement activities can be drawn from the data reported in the previous section.

- o The vocational education program improvement database is a useful tool for summarizing and analyzing vocational education research, exemplary and innovative, and curriculum development activity. Although this analysis reports composite information for all of the states, the database allows similar analysis for individual states.

- o States seem to place a lower priority on research, exemplary and innovative, and curriculum development activities than on vocational guidance and counseling, personnel training, and sex equity. State program improvement projects funded during FY 1978-FY 1982 under Section 131 (research), Section 132 (exemplary and innovative), and Section 133 (curriculum development) represent about $105 million or 19.2 percent of the approximately $545 million allocated to states for program improvement and support services for the five-year period.

- o States seem to allocate a rather stable portion (18.3 to 20.7 percent) of the federal allocation for program improvement to research, exemplary and innovative, and curriculum development activities. The variation in the number of projects and the amount of funds obligated for these activities parallels the variation in federal program improvement allocations to the state.

- o States place about equal emphasis on research, exemplary and innovative, and curriculum development activites. The total amount of funds obligated by all states under each legislative section is nearly the same, however, individual states vary considerably, some choosing to fund no projects under certain legislative sections.

- o Curriculum development seems to be perceived by the states to be more important than research and exemplary and innovative activities. With the exception of FY 1978, Section 133 (curriculum development) has had the most funds devoted to it.

- o Public education agencies and institutions played a dominant role in conducting program improvement activities. Projects were conducted by educational agencies and institutions at every level. The largest share of projects were contracted to four-year colleges and universities (38.0 percent), local educational agencies (28.4 percent), and two-year colleges (10.0 percent).

- o States showed a heavy concern for assisting practicing teachers and a relatively small concern for teacher education programs. About 50 times as many resources were devoted to materials and services for local vocational and technical education teachers as for teacher educators.

- o State level commitment to dissemination is strong and stable in that the funds obligated for distribution of materials has increased annually.

- o The greatest program improvement effort has focused directly on improvement of instruction in local vocational education programs. Over 1,300 projects and $36 million was obligated specifically for curriculum development.

RECOMMENDATIONS

As a result of this analysis, the following recommendations are proposed relating to the maintenance and use of the vocational education program improvement database, to research, to policy, and to administration.

It is recommended:

- That the abstracts prepared by the research coordinating unit staff be more descriptive, clearly stating the objectives, procedures, target audiences, and outcomes of the project to increase the usefulness of the database.

- That the vocational education program improvement database be searched by researchers and curriculum developers before beginning a research or curriculum development project to reduce duplication of effort.

- That the vocational education program improvement database also include information about Section 135 (vocational education personnal training) projects which may account for 50 percent of the Subpart 3 (Program Improvement and Support Services) investment.

- That state departments of education use the information in the RIVE database as a basis for program improvement planning and decision-making.

- That systematic studies of the impact of state level program improvement activities conducted during the past five years be undertaken to determine the extent and nature of vocational education program improvement.

- That the curriculum development activities be closely coordinated across states to reduce duplication and maximize the use of the material.

- That the relative merits of states funding a few large program improvement projects versus funding many small efforts be studied.

- That the allocation of program improvement funds between inservice education and preservice education be examined, as the process relates to short term payoff versus long term solutions.

APPENDIX A

SAMPLE PROGRAM IMPROVEMENT PROJECT ABSTRACT

SAMPLE PROGRAM IMPROVEMENT PROJECT ABSTRACT

24
AN 007145. 8210.
FS 133.
FY 1982.
ST Washington.
PI WA8213328.
NO CN: 82-AMB(164)ER.
TI Information Processing Course Development.
PD Weaver, Dianne; Lundstrom, Shirley.
PHONE: (206) 532-9020.
ON Grays Harbor College.
Aberdeen, WA 98520.
OT College/University.
SA Washington State Commission for Vocational Education, Olympia.
DT Start Date 30 Dec 81; End Date 31 Oct 82.
FF $2,288.
TP TEACHER/COORDINATOR.
EL HIGH SCHOOL AND POSTSECONDARY (10-14).
PR TRAINING PROGRAM.
MJ Data-Processing. Information-Processing. Instructional-Materials.
ID State. Proposal. *Word Processing.
PP CURRICULUM.
AB A course of study will be developed to teach information processing--an integrated approach to the combination of word and data processing. The project director will review existing materials, assess local materials through advisory committee members, develop information processing course materials, review materials with an advisory committee, make necessary revisions, and publish units. A final report will be delivered.

APPENDIX B

CURRICULUM ACTIVITY FOR MULTIPLE JOBS OR AREAS BY LEGISLATIVE SECTION

CURRICULUM ACTIVITY FOR MULTIPLE JOBS OR AREAS
BY LEGISLATIVE SECTION

Jobs or Areas[1]	Section 131	132	133
Accountant and Cashier	1		
Agricultural Economics	1		
Agricultural, Industrial Arts, Business and Office and Home Economics	1		
Agricultural Mechanics	1		
Air Conditioning, Electromechanical Technology and Heating	1		
Auto Mechanics	1		
Banker and Nurse's Aide	1		
Bilingual Translator, Math and English	1		
Building Trades Occupations	1		
Coal Mining and Agricultural Occupations	1		
Culinary Arts and Mathematics	1		
Educable Handicapped	1		
Electronics, Radio and TV	1		
Farm Management	1		
Financial Management	1		
Heavy Equipment Matinenance and Mining	1		
Home Economics and Trade and Industrial Careers	1		
Home Economics, Agricultural Marketing, Health and Industrial Arts	1		
Home Economics and Nursing	1		
Home Furnishing and Cloth Apparel	1		
Hotel Management Occupations	1		
Hotel/Restaurant and Food Service Management	1		
Industrial Safety	1		
Land Reclamation and Mining Technology	1		
Nuclear Energy Analysis, Mathematics Agriculture	1		

NOTE: [1]The terminology used in the project abstracts.

CURRICULUM ACTIVITY FOR MULTIPLE JOBS OR AREAS
BY LEGISLATIVE SECTION (continued)

Jobs or Areas	Section 131	132	133
Tourism/Restaurant Management	1		
Welding and Cabinet Making	1		
Air Conditioning and Refrigeration		1	
Auto Diesel and Appliance Repair		1	
Auto Mechanic and Building Trades		1	
Architectural Technology		1	
Banking and Skilled Crafts		1	
Carpentry and Masonry		1	
DC Electric, Hydraulic Systems		1	
Diesel Mechanic and Appliance Repair		1	
Energy Conservation Occupations		2	
Fishery Industry		2	
Forestry and Ranching		1	
Health, Carpentry, Auto Mechanic, Cosmetology, Food Service, and Machine Shop		1	
Hotel and PBX Operations		1	
Landscape Industry		1	
Laser/Electric/Optic Technology		1	
Marine Occupations		2	
Micro-Minicomputer Training		1	
Mine Technology		1	
Operating Room Technology		1	
Petro Chemical and Transportation		2	
Petroleum Industry Occupations		1	
Police Science		1	
Production Agriculture and Horticulture		1	
Public Services and Related Occupations		1	
Railroad Maintenance Occupations		1	
Shell Fishery Industry		2	
Solar Energy Occupations		11	

CURRICULUM ACTIVITY FOR MULTIPLE JOBS OR AREAS
BY LEGISLATIVE SECTION (continued)

Jobs or Areas	Section 131	132	133
Surgical Technicians		1	
Telecommunication and Mass Media		1	
Tourism and Hospitality		3	
Water Treatment Plant and Distribution System Operators		1	
Word Processing and Accounting		1	
Accounting, Forest Products, Graphics and Health Occupations			1
Advertising Services			1
Agricultural Chemicals, Nursing, and Landscape, Design			1
Air Conditioning and Heating, Automotives, Engine Technology, and Building Trades			1
Appliance Repairer and Electronics Technician			1
Architectural Drafting and Word Processing			1
Auto Body, Carpentry, Commercial Foods, Design Tailoring, Electrical Trades, Machine Trades, Medical Assistant, Plumbing, Welding, Auto Mechanics, Commercial Baking, Cosmetology, Diesel Mechanic, Health Assistant, Masonry, Medical Secretary, and Retail Trades			1
Auto Mechanics, Carpentry, Office Practice, Retailing, Health Assistant, and Electrical Trades			1
Auto Mechanics, Office Practice, Food Service, Health Assistant, and Electrical Trades			1
Automotive Petroleum Occupations			1
Automotive Technology, Computer Science, Criminal Justice, Drafting, and Design			1
Aviation, Computers, Electronics, Environmental Protection, and Medical			1
Blaster, Surface Laborer, Machine Operator, Surface Mechanics, and Electrician			1
Carpentry, General Retailing and Conservation			1

CURRICULUM ACTIVITY FOR MULTIPLE JOBS OR AREAS
BY LEGISLATIVE SECTION (continued)

Jobs or Areas	Section 131	132	133
Carpentry/Woodworking, Welding and Cutting, Machine Shop, Auto Mechanic, and Small Engine Repair			1
Cashier/Checker			1
Coal Mining Occupations			2
Computers and Building Trades			1
Cooperative Occupations and Building and Ground Maintenance			1
Computer Language Technology			1
Computer Operator, Data Entry, Lubrication Specialist, Auto Tune-Up, and Machinist			1
Construction Trades			1
Cosmetology, Data Processing, LPN, Machine Operator, Small Engine, Welding, and Electrical Trades			1
Cosmetology, Machine Operator, and Welding			1
Custodial Services			1
Custom Dressmaking, Certified Lab Assistant, Homemaking, Farm Equipment Mechanic, and Commerical Art Layout			1
Data Processing, Cosmetology, Small Engines, Carpentry, Construction, and Food Service			1
Data Processing and Computer Science			1
Data Processing Occupations			1
Dental Hygienist, Medical Record Keeping, and Property Manager			1
Dental Lab and Refrigeration Mechanic			1
Electric Lines Person, Water and Wastewater, Building Codes Inspection, and Construction Equipment			1
Electricity, Avionics, Automotive Science, Solar Energy, and Office Machines			1
Electronic Technicians and Fire Science Employees			1
Electronics, Automotive, and Printing			1

CURRICULUM ACTIVITY FOR MULTIPLE JOBS OR AREAS
BY LEGISLATIVE SECTION (continued)

Jobs or Areas	Section 131	132	133
Electronics and Electricity Occupations			1
Electronics and Engineering Technology			1
Electronics and Energy Occupations			1
Energy Conservation, Heavy Equipment (Diesel) Repair, Plant Maintenance, Horticulture, and Landscaping			1
Energy Occupations			2
Farming and Fiberglas Lamination			1
Finance and Credit Occupations			1
Fire Prevention Occupations			1
Fishery Occupations			2
Food and Automotive Occupations			1
Food Service and Chef Training			1
Food Service and Electronics			1
Gardening, Groundskeeping, Floriculture, and Turf Management			1
General Construction Trades, Co-op Part-time Training, Office Duplication Practice, General Metal Trades, and Commercial Display and Decoration			1
Graphic Arts, Auto Body, Auto Mechanics, Machine Shop, Electronics, AC Electronics, Dental Assistant, Health Occupations Inservice, and Body Structure			1
Graphics, Letterpress, Offset Lithography, and Electrical Trades			1
Graphics, Radio-TV, Electronics, and Electrical Trades			1
Farm and Garden Occupations			1
Health Service Aide and Food Production Services			1
Hotel/Motel Occupations			2
Housekeeping and Sewing			1
Insurance and Agriculture Services			1

CURRICULUM ACTIVITY FOR MULTIPLE JOBS OR AREAS
BY LEGISLATIVE SECTION (continued)

Jobs or Areas	Section 131	132	133
Land Survey, Field Technician, and Nuclear Medical Technology			1
Machine Shop Occupations			2
Management and Family Economics			1
Manufacturing Occupations			1
Meat Processing and Grain Elevator Operations			1
Media Technology			1
Metals Programs			1
Microcomputer Occupations			2
Office Practice, Carpentry, Food Service, General Merchandising and Retailing, Health Assistant, and Electrical Trades			1
Oil, Mining, Solar Energy, and Office Occupations			1
Ornamental Horticulture Industry			1
Printing and Electronics Occupations			1
Power Mechanics and Auto Mechanics			1
RN and Dental Assistant			1
Radiographic and Radio Communication Technicians			1
Real Estate, and Business and Personal Services			1
Secretarial, Data Processing, Autobody, Plumbing, and Small Engines and Tractor Mechanics			1
Technologies Occupations			1
Telephone Industry Occupations			1
Transportation and Warehousing Occupations			1
Water and Wastewater Treatment Plant Operators			2
Welding and Furniture Making			1

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