

<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
	\$4,037			\$4,037	6/17/68- 12/31/68
Models and Simulation					
75,454	31,353			203,715	6/27/66- 6/26/69
				57,421	5/1/65- 12/31/66
31,989				31,989	10/10/66- 6/1/67
4,256				4,256	10/24/66- 12/31/67
9,940				9,940	9/1/66- 9/1/68
7,128				7,128	9/30/66- 9/29/67
415,000	553,875	379,016		1,567,840	6/30/66- 7/31/69

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The Office of Education, through the Bureau of Research and the Bureau of Elementary and Secondary Education, has spent approximately \$67 million on research and research related activities, planning projects, and operational programs on the application of computer technology and its use in education. Appendix A lists projects funded through the Bureau of Research for 1967, 1968, and 1969--thirty-five on computer assisted instruction and computer managed instruction, 13 on programming for specialized data development and analysis, 11 on computer models and simulation, 24 on data banks and information retrieval systems, 11 on computers in administration and organization, and 37 on curriculum and training for computer application. Appendix B contains the abstracts of these projects. Appendix C lists 158 reports which have appeared in the journal "Research in Education" on computer related activities. Twenty regional educational laboratories, their addresses, major program interests, and specific computer projects are listed in Appendix D. Appendix E provides a list of 11 Research and Development Centers and 19 Educational Resources Information Center (ERIC) Clearinghouses, with their addresses. In Appendix F 155 Projects to Advance Creativity in Education (PACE) sponsored for 1966, 1967, and 1968 are listed. (JY)

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OE-12044

U.S. Office of Education Support of Computer Activities

By
Andrew R. Molnar
Chief, Instructional Materials and
Practices Branch
Division of Higher Education Research
Beverly Sherman
Research Assistant
Division of Higher Education Research

January 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education

Robert H. Finch, Secretary

James E. Allen, Jr., *Assistant Secretary and Commissioner of Education*

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U.S. OFFICE OF EDUCATION SUPPORT OF COMPUTER ACTIVITIES

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INTRODUCTION: COMPUTER ACTIVITIES IN EDUCATION

Historically, it is estimated that the Office of Education has spent approximately \$67 million on research and research-related activities, planning projects, and operational programs which focus on the application of computer technology and use in education.¹ This figure is a conservative estimate based upon readily available information on programs which are described in this report.

There are several programs which characteristically support most of the computer-related work. Title IV of the Elementary-Secondary Education Act (ESEA) of 1965 (Cooperative Research), tends to support the major research and development efforts. Title III and Title I of the Elementary-Secondary Education Act have tended to support the planning and operational uses of computers.

I. BUREAU OF RESEARCH SUPPORT OF COMPUTER-RELATED RESEARCH

It should be noted that many research projects supported by the Office of Education's Bureau of Research do involve computers in one way or another. It is most common for educational research projects to utilize the computer during the organization and analysis of research data. On the whole, such projects are not included in the present compilation. Rather the projects being considered in this discussion have been singled out because their emphasis is on the exploration of ways in which computer technology may make a significant contribution to American education. Similarly, only selected programmatic efforts have been chosen for mention.

¹For purpose of comparison, it is estimated the total national expenditure for education in Fiscal Year 1967 was \$40 billion. The U.S. Office of Education appropriation for Fiscal Year 1967 was \$3.9 billion. It is estimated that in Fiscal Year 1967 that \$859,961,355 was spent (including matching funds) for media and media-related activities.

The information provided in the following sections and accompanying appendixes is intended to show directions and scope of Office of Education support of computers. All dollar figures should be regarded as estimates indicative of trends.

A. Project Research

Since the late 1950's an estimated \$35.6 million has been provided for the support of over 210 research-related projects concerned with the educational uses of computers. Most of these projects have received support through the Cooperative Research Act (amended by Title IV of the Elementary-Secondary Education Act of 1965) and others have been made possible through funds appropriated for Title VII of the National Defense Education Act (NDEA)² and the Vocational Education Act of 1963. Title VI of the National Defense Education Act which supports research in foreign languages has supported some computer projects. Most notable is a computer-assisted instruction project in Russian at the Stanford University. (Appendix A presents a list of computer-related projects for FY'67, '68, and '69 which are on-going as of November, 1968. Appendix B presents abstracts of on-going and completed research.)

B. Programmatic Research

In addition to project research supported by the Bureau of Research under its several authorizations, programmatic research involving computer use has also received significant support. Such efforts are carried out through the Research and Development Centers and the Regional Educational Laboratories.

1. Research and Development Centers

There are nine Research and Development Centers supported by the Cooperative Research Program and two others supported under the Vocational Education Act of 1963. For Fiscal Year 1968 approximately \$579,000 was spent on studies in computer-assisted instruction (CAI) and computer-managed instruction (CMI) in the R&D Centers. The Stanford Center for Research and Development in Teaching and the Learning Research and Development Center at the University of Pittsburgh have probably been the most active in the area of computers. The Learning Research and Development Center received \$285,000 in Fiscal Year 1967 and \$371,000 in Fiscal Year 1968 for research on computer-assisted instruction and for a project for developing a system for computer-assisted management of individualized instruction programs. (See Appendix E for list of Centers.)

²Title VII of NDEA, Research in New Educational Media, expired at the end of Fiscal Year 1968.

2. Regional Educational Laboratories

The major objective of the twenty Educational Laboratories is to encourage the development and demonstration of new educational products and methods of instruction. The Educational Laboratories have devoted an estimated \$2,719,378 to computer-related research and applications. The Southwest Regional Laboratory in Inglewood, California has received \$345,000 in Fiscal Year 1967; \$407,000 in Fiscal Year 1968; and is expected to receive \$625,000 for the development of computer-managed instructional and administrative planning systems during Fiscal Year 1969. (See Appendix D.)

C. Research Dissemination

With the ever increasing amount of information and research in education, the Office of Education has called upon the storage and retrieval capabilities of the latest data-processing equipment in order to compile relevant data and operate its Educational Resources Information Center (ERIC). ERIC is the first nationwide, comprehensive information system designed to serve American education. With a central office in the Office of Education, ERIC coordinates the efforts of nineteen satellite clearinghouses across the country, each of which focuses on a separate subject-matter area. Although it is difficult to break out computer from other costs in the ERIC program, the computer costs of this information system were an estimated \$4,087,000.

ERIC COMPUTER COSTS

<u>Fiscal Years</u>	<u>Costs</u>
1966	\$ 177,000
1967	807,000
1968	900,000
1969	953,000
1970	1,250,000

(See Appendix E for list of ERIC Centers.)

D. Scope and Type of Research Projects

Project research receiving Bureau of Research support falls into six general categories:

1. Computer-Assisted Instruction, Computer-Managed Instruction (CAI-CMI)

Projects in this category primarily deal with the study of learning variables as the student reacts to instruction by computer and the development of software, including curriculum programming, and administrative control for use in CAI-CMI.

One of several examples of this category is the computer-assisted instruction project conducted by Dr. Patrick Suppes and Dr. Richard Atkinson of Stanford University. They have been working on the development and testing of computer-assisted instruction curriculums in beginning reading and mathematics for the culturally deprived in primary grades. They have developed basic programs as well as drill and maintenance exercises. Extensive effort has been devoted to learning theory, the logic of complex concept formation and systems analysis. Recently, these computer-assisted instruction services have been expanded to schools in Kentucky and Mississippi. That is, the central computer is being used through terminals in the various states via common carrier lines. An interesting aspect of this is that due to the difference in time zones it is possible to have longer on-line use of the computer.

At Florida State University, Dr. Duncan Hansen has developed a computer-assisted instruction course for introductory college physics which he is comparing with a lecture course. He is relating student variables and student attitudes with learning effectiveness and will try to estimate the cost-effectiveness of the program.

Dr. Alexander Schure of the New York Institute of Technology is developing and testing a computer-managed system for individualizing and optimizing instruction. This project seeks to test the cost-effectiveness of this approach to individualized learning.

2. Programming for Specialized Data Development and Analysis

Such projects involve the application of new computer programs to generate otherwise inaccessible data and perform analyses and translations uniquely practical by computer.

One example of this category is a project by Dr. Ellis Page of the University of Connecticut. He is developing a computer analysis of English composition essays. The objectives of the study are to analyze the computer-generated objective data in relation to subjective measures and study those aspects of essay description which appear most promising for feedback to teachers and students. Hundreds of student essays on assigned topics will be rated independently on content, style, organization, mechanics and overall quality. These ratings will form the basis for the computer analysis.

Two other projects in this category were concerned with the computer production of braille materials from print for blind children.

3. Computer Models and Simulation

These activities involve the utilization of computers for the projection and testing of theoretical ideas in educational research and statistics as well as the testing of alternatives for decision-making in real life situations.

Among examples of this category are the computer simulation of a statewide film network and a computer study of the allocation of channels and placement of transmitters in a metropolitan area.

4. Data Banks and Information Retrieval Systems

These projects explore the potential of the computer for storage and retrieval of large bodies of information relevant to education and educational research.

Typical projects in this category include studies to develop computer based systems for library use, the search of bibliographic holdings in on-line computer systems, and storage and retrieval studies.

In another project, the Interuniversity Communications Council (EDUCOM) is establishing a computer network for sharing of computational capability resources among network user nodes. Prior to the establishment of the network, EDUCOM will survey existing networks and evaluate the strengths and weaknesses of each.

5. Computers in Administration and Organization

Projects falling into this category pertain to promising uses of the computer in educational planning and management at all levels. Several feasibility studies for computer use in schools are included.

Typical projects in this area have dealt with class scheduling problems, student accounting systems, and the development of a computer program for use in the analysis of future land, building, and staff requirements in institutions in higher education.

6. Curriculum and Training for Computer Application

Such projects include the development of curriculum for training in computer use and the establishment of training programs to aid educators and researchers in making use of computer technology in their respective work activities.

In addition to specific training and curriculum projects, the Bureau of Research initiated a series of feasibility studies for the development of a regional computer utility with the International Business Machines Corporation, the General Learning Corporation, and Computation Planning, Inc. The objective of the studies was to determine what computer services could be obtained from a centralized facility which would service 100,000 students within a 100-mile radius at a minimum cost and to evaluate the worth of these services. Interestingly enough, independent studies showed that it would be possible to provide the administrative computer services for the schools, junior colleges, and universities within this area during the post school hours while providing terminals for students for problem solving, computer concept and vocation training during the school day--all of this for about 1% of the school's operating budget. Currently the Bureau of Research is initiating a project to develop and demonstrate this concept. It is also contemplated that student guidance, computer-managed instruction, and library functions will also be ultimately added to the system.

Although the following table, "Bureau of Research Computer Related Projects" shows a decline in the total number of projects supported and the total dollars spent from Fiscal Year 1967 to Fiscal Year 1969, the total costs per project have increased. This reflects an awareness that educational computer projects deal with complex systems and that unless given sufficient support and time it is difficult to evaluate the effectiveness of the educational approach. Consequently, the trend has been away from small component oriented projects to larger system oriented projects.

BUREAU OF RESEARCH COMPUTER-RELATED PROJECTS

Category	No. of Projects Receiving Funds FY'67	Total Investment FY'67	No. of Projects Receiving Funds FY'68	Total Investment FY'68	No. of Projects Receiving Funds FY'69	Total Investment FY'69
I: CAI and CMI	18	\$2,020,108	18	\$2,938,735	10	\$2,876,084
II: Programing for Specialized Data Development and Analysis	5	135,143	6	243,142	0	0
III: Computer Models and Simulation	7	621,792	5	603,326	1	379,016
IV: Data Banks and Informa- tion Retrieval Systems	19	1,922,324	6	556,082	1	23,000
V: Computers in Administra- tion and Organization	6	339,969	2	32,200	1	96,211
VI: Curriculum and Training for Computer Application	<u>17</u>	<u>567,483</u>	<u>13</u>	<u>526,424</u>	<u>1</u>	<u>248,544</u>
TOTAL	72	\$5,606,819	50	\$4,969,689	14	\$3,622,855

Total Projects Supported in Computers by Bureau of Research since Inception of Program: 210
 Estimated Total Investment since Inception of Program: \$35,570,430



II. OTHER OFFICE OF EDUCATION SUPPORT OF COMPUTER ACTIVITIES

A. Title III, Elementary-Secondary Education Act of 1965, Supplementary Centers and Services

Other Office of Education legislative authorizations, aside from those administered by the Bureau of Research, are now providing support for educationally significant uses of computers. Foremost among these is Title III of the Elementary and Secondary Education Act of 1965, administered by the Bureau of Elementary and Secondary Education. The purpose of this title is to provide grants for supplementary educational centers and services. It seeks to stimulate and assist in the development of exemplary elementary and secondary school programs and to serve as models for regular school programs. For Fiscal Years 1966, 1967 and 1968, the Title III program has approved some 155 individual computer-related projects for support at a cost of \$22,271,778. Of this amount, 67 were planning projects and 88 were actual operational projects with costs totaling \$4,472,308 for planning and \$17,799,470 for operational projects respectively. The majority of these projects deal with computer-assisted instruction, the use of computers for school administration, student programming, guidance, counseling, testing, and classroom instruction in programming and computer technology.

B. Title I, Elementary-Secondary Education Act of 1965, Educationally Deprived Children

In addition to Title III, Title I of the same Act is providing some support for computer application. Title I is also administered by the Bureau of Elementary and Secondary Education. The purpose of Title I is to provide financial assistance to local educational agencies in areas with concentrations of low-income families. This assistance will enable these areas to expand and improve educational programs designed to meet the special needs of educationally deprived children. One particularly large effort has taken form in the Philadelphia Public Schools, where some \$1.2 million was spent in Fiscal Year 1966 for equipment development and installation of a computer-assisted instructional system, placing 8 remote terminals in each of 4 high schools.

The implementation of the first high school computer programming course in the State of Oklahoma was made possible by \$6,000 of Title I funds. The Title I money allowed the local school district to rent computers. The remaining \$12,000 is from the local school budget and provided for the teachers' salaries, maintenance of the machines, and the procurement of the necessary supplies. The program is operating at the Altus Senior High School. Classes are limited to about 25 high school seniors who have studied advanced mathematics, i.e., algebra,

trigonometry, geometry, and calculus. Originally the program was a noncredit class for highly motivated students who were economically and culturally disadvantaged. The course is now accredited and provides early experiences in computer programming and advanced concepts in mathematics and science. During the past 4 years, the class has produced a National Champion, two third-place winners, and one second-place winner in the National High School Computer Contest sponsored by the Association of Educational Data Systems.

By linking a computer in Raleigh, North Carolina, to a high school classroom in East Providence, Rhode Island, mathematics becomes a stimulating experience for pupils who were lagging behind their grade level. In all, 60 sophomores are involved in the program. Two general mathematics classes are used, one as a control group and the other as the experimental group. Both groups were tested before the program began and again at the end. During the year the control group takes a general mathematics course, using traditional methods of solving their problems. The experimental group learns the language and techniques of a computer and solves their problems on it. Classes are held in a room equipped with a teletype which is connected through a local computer bank to the center. The computer services are rented with \$3,977 of Title I money. The East Providence school system is the first in the State and one of the first in New England to experiment with the use of computers on the secondary school level.

III. TOTAL ESTIMATED COSTS

While it is difficult to identify all programs which support computer activities in education and to determine the resources spent on such work, it is possible to locate the major funding sources and their related costs.

SUPPORT OF COMPUTERS IN EDUCATION

<u>Administrative Organization</u>	<u>Estimate of Expenditures</u>	<u>Legislative Authority</u>
1. Bureau of Research		ESEA Title IV
a. Project Support	\$ 35,570,430	NDEA Title VI, VII
b. R&D Centers	864,000	Vocational Education Act
c. Educational Laboratories	2,719,378	
d. ERIC	4,087,000	
2. Bureau of Elementary-Secondary Education		ESEA Title I, III
a. Educationally Deprived Children	1,200,000 ³	
b. Supplementary Centers and Services	<u>22,271,778</u>	
ESTIMATED TOTAL	\$ 66,712,586	

IV. NEW PROGRAMS

Two new pieces of legislation offer great potential for U.S.O.E. support of computer activities in education.

First, the Education Professions Development Act of 1967 provides grants to improve the quality of teaching and to help meet critical shortages of adequately trained educational personnel in elementary-secondary schools (including pre-school and adult and vocational programs) and in post-secondary vocational schools. This Act provides resources which could be used in up-grading staff in the area of computer sciences and computer use in education.

Secondly are the 1968 Amendments to the Higher Education Act of 1965. Title VIII of this Act deals with Networks for Knowledge. In addition to other cooperative arrangements, the Title provides for the establishment and joint operation of electronic computer networks to participating institutions for such purposes as financial and student records, student course work, or the transmission of library materials.

³Computer-related work is not a reporting category under this legislation and complete data would have to be obtained from the 50 States.

APPENDIX A

**Bureau of Research Computer-Related Research Projects
for Fiscal Years 1967, 1968 and 1969**

OFFICE OF EDUCATION

Bureau of Research

Computer-Related Research Projects

Category I: Computer-Assisted Instruction (CAI) and
Computer-Managed Instruction (CMI)

<u>Project Number:</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY'67 Funds</u>	<u>FY'68 Funds</u>	<u>FY'69 Funds</u>	<u>FY'70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 000 009 (5-0586)	Edgar R. Garrett New Mexico State University	Speech and Language Therapy under an Automated Stimulus Control System	\$62,675	\$9,232			\$137,988	9/1/65- 1/31/68
EP 000 082 (5-0544)	Dana S. Scott Stanford Univ.	Developing New Materials for High School Geometry	51,192				101,546	7/1/65- 6/30/67
EP 000 127 (5-0652)	J. A. Starkweather California Univ.	Computer Science Instruction in Elementary Grades	76,212	19,050			152,421	9/1/65- 8/31/67
EP 000 142 (5-0679)	Patrick Suppes Stanford Univ.	Development of Mathematical Concepts in Children	45,547				227,723	7/1/62- 8/31/67
EP 000 144 (5-0684)	Richard C. Atkinson Patrick Suppes Stanford Univ.	An Automated Primary Grade Reading and Arithmetic Curriculum for Culturally Deprived Children	180,220				920,166	7/1/64- 12/31/67
EP 000 200 (5-0917)	Stephen Abrahamson Univ. of Southern California	A Developmental Study of Medical Training Simula- tors for Anesthesiologists	136,731	4,364			272,130	9/1/65- 1/31/68
EP 000 241 (5-1081)	Rob Roy Rensselaer Poly- technic Institute	Computer Aided Instruction for a Course in Bodean Algebra and Logic Design					9,450	4/15/66- 9/15/67

<u>Project Number</u>	<u>Investigator/ Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 000 256 (5-1119)	Frank Marzocco Robert H. Davis Michigan State University	Interaction of Individual Differences with Methods of Presenting Programmed Instructional Materials by Teaching Machine and Computer					\$32,384	6/1/66- 12/31/67
EP 000 265 (5-1179)	J. A. Easley Illinois Univ.	A Project to Develop and Evaluate a Computerized System for Instructional Response and Analysis	75,726				149,696	10/1/65- 9/30/68
EP 000 331 (6-1310)	Mary A. MacDougall Virginia Univ.	Methods of Presenting Programmed Science Materials to Fourth Grade Pupils of Varying Ability and Achievement	31,492				64,940	6/15/66- 4/14/68
EP 000 362 (6-1762)	Ernest Burkman Florida State University	The Development and Evaluation of a Science Curriculum for Grades 7, 8, and 9	219,174	655,658	166,820	166,820	1,624,604	6/20/66- 8/31/70
EP 000 477 (5-8334)	Kenneth H. Wodtke Pennsylvania State University	Random Versus Ordered Sequencing in Computer-Assisted Instruction					8,400	6/10/66- 3/31/67
EP 000 488 (5-0035)	Harold E. Mitzel George L. Brandon Pennsylvania State University	Experimentation with Computer-Assisted Instruction in Technical Education		206,000	303,000		984,081	6/1/65- 5/31/69
EP 000 763 (5-1194)	Harold Mitzel Pennsylvania State University	The Development and Presentation of Four Different College Courses by Computer Teleprocessing					219,059	4/1/64- 12/31/66
EP 000 840 (5-0311)	Jesse Richardson Mass. State Dept. of Education	Teaching Mathematics through Use of a Time-Shared Computer	13,636				191,987	6/1/65- 4/30/67

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 000 955 (6-1493)	Patrick Suppes Richard Atkinson Stanford Univ.	Stanford Program in Computer-Assisted Instruction	\$559,356				944,469	6/29/66- 6/30/68
EP 010 168 (6-1458)	T. Smith Florida State Univ.	The Development of Pre- vocational Education Literacy Courses for Use with Computer-Assisted Instruction of Disadvantaged Youths and Adults	113,304				223,387	6/1/66- 5/31/68
EP 010 143 (5-0141)	John F. Cogswell System Development Corporation	Use of Computer Technology in Vocational Counseling					179,625	12/3/65- 8/31/67
EP 010 196 (5-1332)	Gilbert B. Rozran Systems Operation Support, Inc.	A Study of the Effectiveness of a Military-Type Computer Based Instructional System When used in Civilian High School Courses in Electronics and Auto Mechanics					141,108	4/1/66- 3/31/67
EP 010 310 (7-0071)	Duncan Hansen Florida State University	Research and Implementation of Collegiate Instruction of Physics via Computer- Assisted Instruction	236,734				236,734	10/15/66- 8/14/68
EP 010 565 (7-0400)	Joseph B. Margolin George Washington University	Education in the Seventies - A Study and Description of Model School Systems of the Next Decade, Utilizing Com- puter Assisted Instruction	57,989				57,989	2/1/67- 9/1/67
EP 010 641 (7-E-063)	Robbin R. Hough Michigan State University	Development and Testing of a Systems Model of the Classroom Relevant to Class- room Teaching and Computer- Assisted Instruction	9,864				9,864	5/1/67- 12/31/67

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 010 744 (7-1037)	Edwin F. Shelley E. F. Shelley and Company, Inc.	Systems Management Assistance to the Office of Education in the Develop- ment of a New Comprehensive Secondary School Curriculum	\$48,809	\$372,975	\$260,906	\$682,690	5/5/67- 11/5/69	
EP 010 918 (7-0760)	Ned C. Deihl Pennsylvania State University	Development and Evaluation of Computer Assisted Instruc- tional Instrumental Music	19,066	22,920	6,474	48,460	6/28/67- 6/27/70	
EP 011 020 (7-1209)	Patrick Suppes J. A. Van Campen	Application of Mathematical Learning Theory to Second- Language Acquisition with Particular Reference to Russian	104,425	104,425		104,425	9/1/67- 8/31/68	
EP 011 163 (8-F-001)	William W. Kennan Gerald L. Erickson Minnesota State Dept. of Education	A Study for the Coordination of Education Information and Data Processing from Kindergarten through College	8,858	8,858		8,858	7/1/68- 2/28/69	
EP 010 942 (7-9006)	John Bilinski General Learning Corporation	A Cost Study of Educational Media Systems and Their Equip- ment Components (Vol. 3 - CAI)	82,381			82,381	6/28/67- 2/10/68	
EP 011 256 (8-B-087)	Roger L. Sisson Martin F. Stankard Pennsylvania Univ.	Optimal Use of a Computer Based Instruction System in an Existing Urban School District	9,458	9,458		9,458	6/24/68- 4/24/69	
EP 011 269 (8-I-026)	Richard C. Atkinson Stanford Univ.	Computer-Based Instruction in Spelling - An Investigation of Optimal Strategies for Present- ing Instructional Material	8,775	8,775		8,775	4/1/68- 11/30/68	
EP 011 310 (8-0664)	Pauline Atherton Syracuse Univ.	Development of a Computer-Based Laboratory Program for Library Science Students Using L.C./Marc Tapes	104,480	104,480		104,480	6/24/68- 12/23/69	

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY'67 Funds</u>	<u>FY'68 Funds</u>	<u>FY'69 Funds</u>	<u>FY'70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 011 105 (8-0157)	Alexander Schure John Theobald New York Institute of Technology	A Computer-Managed System for Individualizing and Optimizing Education	\$296,880	\$594,600	\$594,600	\$594,600	\$1,486,080	5/1/68- 4/30/71
8-0446	Alexander Schure New York Institute of Technology	Development of a Multi- Media Course in Physics for the U.S. Naval Academy	375,000	525,000	245,000	1,145,000	3/1/68- 2/28/71	
8-0447	J. Sterling Livingston Sterling Institute	Development of a Multi-Media Course in Economics for the U.S. Naval Academy	240,660	302,000	100,000	642,660	3/1/68- 2/28/71	
8-0448	Donald Tosti Westinghouse Learning Corp.	Development of a Multi-Media Course in Leadership for the U.S. Naval Academy	400,000	500,000	450,000	1,350,000	6/28/68- 5/26/71	
8-0509	Karl Zinn Univ. of Michigan	An Evaluative Review of Con- versational Uses of Computers in Education	69,780	69,780		69,780		
Category II: Programming for Specialized Data Development and Analysis								
EP 000 316 (6-1190)	Ann Schack Joseph Schack American Printing House for the Blind	Computer Translation, Grade Two Braille from Print	20,340	24,600			69,540	6/1/66- 5/31/69
EP 000 333 (6-1318)	Ellis B. Page Connecticut Univ.	Analysis of Essays by Computer					74,081	6/16/66- 10/1/67
EP 000 662 (5-8246)	Lawrence F. McNamee East Texas State University	A Bibliography of English and American Literature Disserta- tions Accepted by American, British and German Universities from 1864-1964					10,513	6/1/65- 11/30/66
EP 010 005 (5-0909)	Gordon R. Wood Southern Illinois University	Sub-Regional Speech Variations in Vocabulary, Grammar and Pronunciation					14,492	5/3/66- 9/30/67

<u>Project Number</u>	<u>Investigator/ Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 010 220 (5-1313)	Frederic Cassidy University of Wisconsin	Completion of Collecting and Preparation for Editing a Dictionary of American Regional English	\$74,400	\$179,500			\$328,300	7/1/65- 8/31/68
EP 010 389 (6-8925)	Calvin C. Nelson University of Southern California	A Planning Project to Study the Feasibility of Computer Production of Braille Materials for Public School Blind Children	9,600				9,600	11/4/66- 7/31/67
EP 010 536 (6-1363)	Abraham I. Katsh New York University	The Construction of a Computer Program for the Classification of Hebrew Word Stems	23,303				23,303	1/1/67- 12/31/67
EP 010 745 (7-8045)	Maurice F. Tauber Jessica L. Harris Columbia Univ.	A Study of the Computer Arrangeability of Complex Terms Occurring in a Major Tool Used in Subject Analysis	7,500				7,500	6/1/67- 5/31/68
EP 011 002 (7-E-189)	Robert B. Kane Purdue Research Foundation	Reduction of Errors due to the Position of Items in the Administration of the Semantic Differential Questionnaire		9,998			9,998	2/1/68- 8/31/68
EP 011 233 (8-0114)	Donald Leton Hawaii University	Computer Program to Convert Word Orthography to Phoneme Equivalents		14,517			14,517	5/3/68- 5/2/69
8-0677	Abraham I. Katsh New York Univ.	The Construction of an Algorithm for Stem Recognition of the Hebrew Language (cont. of Project Number 6-1263)						
8-0678	John A. Hutchins U. S. Naval Academy	An Investigation into the Elements of Spoken Portuguese		10,490			10,490	6/15/68- 6/15/69

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 011 368 (8-I-081)	John J. Bruha University of Southern Calif.	Stimulus Approach Tendencies of Learners as a Factor in Instructional Materials Evaluation	\$4,037	\$4,037			\$4,037	6/17/68- 12/31/68
Category III: Computer Models and Simulation								
EP 000 363 (6-1774)	Thomas F. Pettigrew Harvard University	Study of School Inte- gration	75,454	31,353			203,715	6/27/66- 6/26/69
EP 000 561 (5-0272)	Eugene Oxhandler Syracuse University	The Computer Simulation of a Statewide Film Library Network, A Feasibility Study					57,421	5/1/65- 12/31/66
EP 001 023 (6-1519)	Warran Boecklen Cooperating Schools A-V Corp. of St. Louis County	A Computer Study of the Allocation of Channels and Placement of Transmitters for 2500 Megacycle Fixed- Station Service in a Metro- politan Area Containing Many Eligible Applicants for Licensing	31,989				31,989	10/10/66- 6/1/67
EP 010 275 (6-8329)	Gene V. Glass Illinois Univ.	Analysis of Time-Series Quasi-Experiments	4,256				4,256	10/24/66- 12/31/67
EP 010 378 (6-8133)	Arnold Reisman University of Wisconsin	Flow of Doctorate Holders into College and University Staffs	9,940				9,940	9/1/66- 9/1/68
EP 010 478 (6-8209)	Donald Zimmerman East Carolina College	An Investigation of Non- Independence of Components of Scores on Multiple Choice Tests	7,128				7,128	9/30/66- 9/29/67
EP 010 766 (6-1819)	David W. Tiedeman and others Harvard University	An Information System for Vocational Decisions under Section 4(c) of the Voca- tional Education Act of 1963	415,000	553,875	379,016		1,567,840	6/30/66- 7/31/69



<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 010 830 (7-0733)	Bruce M Siegenthaler Harold E. Mitzel Pennsylvania State University	The Development and Programming of a Simulated Pure Tone Audiometer	\$78,025				\$78,025	6/16/67- 6/15/68
EP 011 177 (8-D-049)	Tony A. Ross Roscoe A. Boyer Mississippi Univ.	Development of a Special Computer Program to Design School Bus Routes		8,598			8,598	6/1/68- 12/31/68
EP 011 201 (8-A-025)	Barrett Hazeltine Brown University	Instruction Using Experiments in a Computer		5,500			5,500	6/28/68- 5/31/69
EP 011 216 (8-8051)	Albert E. Beaten Beaten Associates, Princeton, N. J.	Computer Models of Student Achievement		4,000			4,000	5/15/68- 7/15/68
Category IV: Data Banks and Information Retrieval Systems								
EP 000 172 (5-0791)	M. M. Miles California State College	A Communications System for Higher Education	25,511				93,246	3/1/65- 6/30/67
EP 000 336 (6-1347)	Roger W. Shuy Michigan State University	A Study of Social Dialects in Detroit	3,780				125,320	3/22/66- 12/31/67
EP 000 344 (6-1502)	Walter J. Foley Iowa University	Educational Information Project	123,889	80,000			639,726	2/2/66- 8/31/69
EP 001 009 (7-0227)	Garry R. Walz American Personnel and Guidance Assoc. Washington, D.C.	The Design and Implementation of Information Systems for Pupil Personnel Services	8,236				8,236	3/10/67- 4/9/67
EP 001 013 (7-0259)	Eugene Oxhandler Syracuse Univ.	A Prototype System for a Computer Based Statewide Plan Film Library Network - A Model for Operation	81,002				81,002	12/16/66- 12/15/67

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 001 044 (7-8381)	Stuart C. Sherman Providence Public Library, R.I.	The Development and Pilot Operation of a System to Reclassify Older Books and Process New Books under the Library of Congress Classi- fication System for a Public Library Currently Employing the Dewey Decimal Classification	\$7,808				\$7,808	6/30/67- 6/30/68
EP 010 182 (6-1369)	Bruce R. Joyce Columbia Univ.	Use of a Data Storage and Retrieval System to Teach Elementary School Children Concepts and Modes of In- quiry in the Social Sciences					52,088	6/1/66- 6/30/68
EP 010 530 (6-1532)	Cloyd D. Gull Indiana University Foundation	Automation for Preparation of Syllabi and Bibliographies for College Instruction	25,545				25,545	10/5/66- 5/31/69
EP 010 700 (6-8910)	Charles Vento University of Southern Calif.	A Systems Approach for Auto- mating the Cataloging and Distribution of Educational Motion Pictures	7,548				7,548	5/1/67- 7/30/68
EP 010 770 (7-1159)	Donald P. Squires Smithsonian Institution	An Information Storage and Retrieval System for Bio- logical and Geological Data	292,927				292,927	6/21/67- 12/21/68
EP 010 771 (7-1145)	Allen B. Veaner Stanford Univ.	Bibliographic Automation of Large Library Operations Using a Time-Sharing System (Project Ballots)	417,490				417,490	6/26/67- 12/26/68
EP 010 772 (7-1085)	M. E. Maron Univ. of Calif., Berkeley	An Information Processing Laboratory for Education and Research in Library Science	141,763				141,763	6/15/67- 12/14/68
EP 010 843 (7-1089)	S. Lubetzky UCLA	Descriptive Cataloging, Development of Principles of Cataloging, Phase I	56,301				56,301	6/15/67- 12/14/68

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 010 845 (7-1129)	Paul J. Fasana Richard H. Logsdon Columbia University	A Computer Based System for Reserve Activities in a University Library	\$90,000				\$90,000	6/1/67- 12/1/68
EP 010 849 (7-1140)	Ben Ami Lipetz Yale University	Study of User Requirements in Identifying Desired Works in a Large Library	109,219				109,219	6/15/67- 5/31/69
EP 010 856 (7-1268)	Lavahn Overmyer Case Western Reserve Univ.	Library Automation - A Critical Review	14,991				14,991	6/29/67- 2/28/69
EP 010 925 (7-1083)	M. E. Maron University of Calif., Berkeley	A Study of the Organization and Search of Bibliographic Holdings Records in On-line Computer Systems	179,719	309,873			498,592	6/15/67- 6/30/69
EP 010 934 (7-1182)	H. L. Resnikoff J. L. Dolby R and D Consultants Co., Los Altos, California	An Evaluation of the Utility and Cost of Computerized Library Catalogs	25,077				25,077	6/30/67- 6/29/68
EP 011 155 (8-G-029)	Lawrence F. McNamee East Texas State University	A Bibliography Both in Manuscript Form and on Computer Tapes of All English and American Literature Dissertations Accepted by American, British and German Universities 1865-1968		6,209			6,209	6/1/68- 8/31/68
EP 011 257 (8-B-089)	Harry B. Lincoln State University of New York, Albany	Development of Computerized Techniques in Music Research with Emphasis on the Thematic Index		10,000			10,000	6/30/68- 6/30/69
EP 011 371 (8-0292)	James L. Dolby R and D Consultants Company	A Study of the Cost of Maintaining and Updating Library Card Catalogs		14,980			14,980	6/28/68- 6/27/69

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 011 378 (8-0697)	J. A. Kennan EDUCOM - Inter- university Communications Council	The Educational Information Network		\$135,000			\$135,000	6/30/68- 6/30/70
8-0814	Menahem Mansoor University of Wisconsin	Politics and Diplomacy in the Arab World: 1930-1967 Documentary and Chronological Study, Storage, Analysis, and Retrieval by Use of Computer Programs						
9-0161	Roger K. Summit Lockheed	ERIC On-Line Retrieval System			23,000		23,000	
Category V: Computers in Administration and Organization								
EP 000 474 (5-8199)	Allen Kent Pittsburgh Univ.	Study of a New Approach to Class Scheduling Problems					7,620	6/1/65- 12/31/66
EP 000 711 (5-8176)	Gordon Anderson Texas University	The Development of a Student Accounting System					8,958	6/1/65- 11/30/66
EP 010 308 (6-8380)	Leonard H. Chaffee Robert W. Zeller State Univ. of N.Y., Albany	Cost Analysis of Automated Scheduling					6,800	6/1/66- 7/31/67
EP 010 352 (5-8414)	Robert C. Meier Washington Univ.	Development of a Computer Program for Use in the Analysis of Future Land, Building and Staff Require- ments in Institutions of Higher Learning					7,586	10/1/66- 9/30/67

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 010 374 (6-2836)	F. R. Burnham Iowa State Dept. of Public Instruc- tion	A Demonstration Center to Implement and Test the School Property Accounting System Presented in Handbook III, U.S. Dept. of HEW	\$50,247				\$50,247	12/1/66- 12/31/67
EP 010 467 (6-2271)	Allen H. Barton Columbia Univ.	Application of Electronic Computer Techniques to Racial Integration in School Systems	59,086				59,086	9/1/66- 10/31/67
EP 010 586 (6-8758)	Morris J. Daniels San Diego State College	A Study of the Effects of Computers on the Occupa- tional Adjustment of a Professional Group	9,000				9,000	6/1/67- 11/30/68
EP 010 665 (7-9000)	D. G. Lewis General Learning Corporation	A Feasibility Study of a Central Computer Facility for an Educational System	129,050				129,050	4/20/67- 9/7/67
EP 011 138 (8-I-066)	June R. Chapin Notre Dame College Belmont, Calif.	The Financial Support, Usage Decision Making and Planning of Computer Centers in Higher Education		7,200			7,200	6/18/68- 8/31/69
7-9001	Jack Stone International Business Machines	Feasibility Study for a Remote Terminal Centralized Computer System	85,000				85,000	5/1/67- 9/7/67
8-9011	H. S. Bright Computation Planning, Inc.	A Single Integrated Central Computer System for Secondary and Junior College Institutions		25,000	96,211		121,211	10/9/67- 10/5/68

Category VI: Curriculum and Training for Computer Application

<u>Project Number</u>	<u>Investigator/ Institution</u>	<u>Project Title</u>	<u>FY'67 Funds</u>	<u>FY'68 Funds</u>	<u>FY'69 Funds</u>	<u>FY'70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 000 619 (6-2084)	William W. Cooley Amer. Inst. for Research in Behavioral Sciences	Program for Training in Computer and Multivariate Applications to Educational Research					\$30,000	9/1/66- 6/30/67
EP 000 940 (7-1059)	James J. Fast Association for Educational Data Systems	The Relationship of Automatic Data Processing Training Curriculum and Methodology in the Federal Government	19,878				19,878	5/15/67- 7/15/67
EP 000 945 (7-8318)	John Schmid Colorado State College	Training Institute for Research Personnel in the Theory of Multiple Regression Formulation of Problems and Computer Utilization	4,725				4,725	8/14/67- 8/19/67
EP 000 946 (7-E-050)	Marina E. Axteen Illinois Univ.	Teaching Library Use to Undergraduate--Comparison of Computer-based Instruction and the Conventional Lecture	6,838				6,838	4/1/67- 8/31/67
EP 000 933 (7-0602)	Russell T. Gregg Univ. of Wisconsin	Research Training Institute for Personnel of the State Departments of Education	35,942				35,942	3/9/67- 7/14/67
EP 000 969 (7-0715)	Carl E. Thornblod Research Council of Great Citjes Program for School Improvement	Great Cities Research Council Educational Communications Project	107,796	49,596			157,392	1/9/67- 6/30/68
EP 000 978 (6-8280)	Karl L. Zinn Univ. of Michigan	Integration of Programed Instruction in an Indepen- dent Study Program	8,906				8,906	9/15/66- 3/14/68

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 001 024 (7-1038)	James W. Altman American Institute for Research in Behavioral Sciences	Orientation of Educators and Behavioral Scientists of Information Systems	\$107,146				\$107,146	6/1/67- 5/31/68
EP 010 077 (6-2502)	Earle T. Hawkins Towson State College	Conference on Curricular and Instructional Innovation in State Colleges and Universities					34,520	5/2/66- 1/31/67
EP 010 126 (5-0144)	Kendrick F. Bangs Colorado Univ.	Curricular Implications of Automated Data Processing for Educational Institutions					153,960	1/1/66- 3/31/68
EP 010 157 (6-1489)	Douglas M. Fellows Hartford Univ.	Experimental Curriculum for Electro-Mechanical Technicians in Computer and Business Machines Technology	15,800	7,000			98,800	6/15/66- 10/15/69
EP 010 206 (6-2437)	Lewis E. Wall Colorado State University	A Study of the Effectiveness of Federally Supported Business Data Processing Summer Institutes					14,440	6/20/66- 8/31/67
EP 010 224 (5-8455)	Edward Y. George Bentley College of Accounting and Finance	Development of a Mathe- matics Curriculum for Undergraduate Business Students	3,400	5,600			9,000	2/1/67- 8/31/69
EP 010 336 (6-1861)	William J. Moore Bucknell Univ.	Development of an Internship and a Computer- Based Research Program as an Integral Part of a Graduate Program in Edu- cational Research					19,980	5/1/66- 8/31/67
EP 010 509 (7-0175)	George McGregor Providence College	Inservice Training in Computer Assisted Instruction for Vocational Teachers	19,926				31,743	12/28/66- 6/30/67

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 010 566 (7-8239)	Thomas Long Altoona Area School District	Counselor Training in Statistical Analysis Via Electronic Processing for Research on Local and Regional Student Data	\$9,867				\$9,867	5/14/67- 9/25/67
EP 010 663 (7-C-015)	Eliezer Naddor John Hopkins University	Inventory Systems Laboratory	3,700				3,700	3/6/67- 12/5/67
EP 010 672 (7-0435)	Alex G. Morphonios Miami-Dade Junior College	Computer-Aided Drafting and Design Summer Institute	19,762				19,762	4/14/67- 8/31/67
EP 010 682 (7-0822)	Francis Tuttle Oklahoma State Board for Vocational Education	Summer Institute to Train Data Processing Teachers for the New Oklahoma State-Wide Computer Science System, Phase II	35,000				35,000	4/15/67- 6/30/68
EP 010 754 (7-8276)	Harry B. Lincoln State University of New York	Development of Computerized Techniques in Music Research with Emphasis on the Thematic Index	10,000				10,000	5/1/67- 4/30/68
EP 010 833 (7-0910)	Edward F. Turner, Jr. Washington and Lee University	Study of the Implications of Modern Technology in Small College Libraries	75,000				75,000	6/15/67- 12/14/68
EP 010 840 (7-1071)	William Deterline General Programmed Teaching, Palo Alto	Development of a Programmed Course for Group Instruction of Secondary Teachers and Administrators in the Techniques of Instructional Technology	83,797				83,797	6/27/67- 5/15/68

<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY'67 Funds</u>	<u>FY'68 Funds</u>	<u>FY'69 Funds</u>	<u>FY'70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
EP 011 035 (7-D-080)	David D. Woodbridge Florida Institute of Technology	A Method for Evaluating Student Progress in Undergraduate Computer Science by use of Automated Problem Sets	\$7,780	\$7,780			\$7,780	3/1/68- 10/31/68
EP 011 204 (8-A-009)	Gilbert Shapiro Boston College	Programming for the Facile Use of the IBM 360 Computer as a Laboratory Instrument in Social Science Statistics Courses	9,594				9,594	7/1/68- 2/28/68
EP 011 222 (8-0449)	Neil S. Humphries Commonwealth Development Assn. Harrisburg, Pa.	Curriculum Development Mobile Instruction Laboratory for Educators	29,829				29,829	6/15/68- 9/15/68
EP 011 224 (8-0727)	Herbert A. Smith National Science Teachers Assn.	The Development of Materials for the Training of Science Education Personnel in Educational Technology	65,458				65,458	5/1/68- 12/31/68
EP 011 236 (7-1229)	Donald P. Estevan Harry F. Silberman System Development Corporation	Implementation of Vocational Counseling System	96,867		248,544	82,854	428,265	6/18/68- 10/31/70
EP 011 288 (8-0775)	William W. Cooley and others Pittsburgh Univ.	Post Doctoral Fellowship Program in Educational Research	42,000				42,000	6/30/68- 8/31/69
EP 011 317 (8-0788)	Lee J. Cronbach and others Stanford Univ.	Post Doctoral Fellowship Program in Educational Research	20,904				20,904	6/30/68- 6/30/69
EP 011 320 (8-0791)	Lee J. Cronbach and others Stanford Univ.	Post Doctoral Fellowship Program in Educational Research	18,850				18,850	6/30/68- 6/30/69
EP 011 393 (8-8038)	Thomas Long Altoona Area School District	Counselor Research Training	9,956				9,956	6/24/68- 8/24/68

ADDENDUM

<u>Category</u>	<u>Project Number</u>	<u>Investigator/Institution</u>	<u>Project Title</u>	<u>FY '67 Funds</u>	<u>FY '68 Funds</u>	<u>FY '69 Funds</u>	<u>FY '70 Funds</u>	<u>Total Cost</u>	<u>Duration</u>
IV.	EP 010 890 (7-1042)	Gabriel Ofiesh Catholic Univ. of America	State of the Art of Dial Access Information Retrieval	\$61,518				\$61,518	6/28/67- 4/30/68
IV.	EP 010 937 (7-1213)	Heinz Von Foerster Robert T. Chien Illinois Univ.	Acquisition of Knowledge in Relation to Information Storage and Retrieval	250,000				250,000	6/22/67- 2/28/69
I.	EP 011 096 (7-0109)	John C. Flanagan American Institute for Research in Behavioral Sciences	A Computer-Based Vocational Guidance System		90,000	147,504		237,504	4/1/68- 1/31/70
VI.	EP 011 113 (8-9022)	Del H. Schallock Northwest Regional Educational Lab.	A Competency Based, Field Central Systems Approach to Elementary Teacher Education		163,000			163,000	3/1/68- 10/31/68
I.	EP 011 125 (8-E-010)	S. D. Conte Purdue Research Foundation	Computer-Assisted Instruction in Teaching Numerical Methods		10,000			10,000	4/1/68- 10/31/69

APPENDIX B

Bureau of Research Computer-Related Research Projects--Abstracts

This section contains resumes of the research projects funded by the Bureau of Research that are listed in the six sections of Appendix A. The projects are arranged in numerical sequence by the EP (Educational Project) Accession Numbers as listed in the Current Project Information (CPI) report. The CPI is the Bureau's method of cataloging all Research projects it funds. In Appendix A this number is the first number found at the left of the project description.

EP 000 009 24 \$137,988 Mueller
SPEECH AND LANGUAGE THERAPY UNDER AN AUTOMATED STIMULUS CONTROL SYSTEM.

Investigator - Garrett, Edgar R.

New Mexico State University, University Park

Bureau No. - BR-5-0586

Proposal date - 04-12-65

Handicapped Children and Youth Branch, DESR

Contract OEC-6-10-198

FY66 - \$66,081. 09-01-65.06-30-66* FY67 - \$62,675.

07-01-66.06-30-67* FY68 - \$9,232. 07-01-67.10-31-67

Descriptors - SPEECH THERAPY, *SPEECH IMPROVEMENT, *LANGUAGE DEVELOPMENT, LANGUAGE INSTRUCTION, *STIMULUS DEVICES, *AUTOINSTRUCTIONAL PROGRAMS, *PROGRAMED INSTRUCTION, MENTAL RETARDATION, RETARDED CHILDREN, ADULT PROGRAMS, CLINICS, LINGUISTICS, INFORMATION PROCESSING, TASK PERFORMANCE, AUDIOLINGUAL METHODS, PILOT PROJECTS, ILLINOIS TEST OF PSYCHOLINGUISTICS, TEMPLIN DARLEY TESTS OF ARTICULATION, TEMPLIN SHORT TEST OF SOUND DISCRIMINATION, UNIVERSITY PARK

Start date - 09-01-65

End date - 10-31-67

Programed instruction based upon stimulus control will be studied for application to the speech and language disorders of adults and children. The application will be made through an automated speech correction system (ASCS) and supervised by school personnel other than speech therapists. Instruction provided by the ASCS should be effective in producing marked changes to functional misarticulation over a period of time. Influences and changes will be noted in the articulation of mental retardates and in the articulation and/or verbal linguistic function of both childhood and adult aphasics. The data collected during the experiments will be analyzed in linguistic and information theory terms. A permanent audiotape record will be made of the performance of each subject using wide area telephone service. A electronic counter and a digital computer will be used for automatic data reduction. The final statistical analysis will be made on an IBM 1620 computer. Planned duration of the program is 26 months. (JH)

EP 000 082 24 \$101,546 Schult
DEVELOPING NEW MATERIALS FOR HIGH SCHOOL GEOMETRY.

Investigator - Scott, Dana S.

Stanford University, California

Bureau No. - BR-5-0544

Proposal date - 11-30-64

Curriculum and Demonstration Branch, DESR

No. 9, California

Contract OEC-6-10-021

FY66 - \$50,354. 07-01-65.06-30-66* FY67 - \$51,192.

07-01-66.06-30-67

Descriptors - GEOMETRIC CONCEPTS, GEOMETRY, *CALCULUS, *MATHEMATICS INSTRUCTION, MATHEMATICAL CONCEPTS, MATHEMATICAL ENRICHMENT, PROGRAMED INSTRUCTION, *SUPERIOR STUDENTS, PROGRAMED MATERIALS, *HIGH SCHOOL STUDENTS, STANFORD, CALIFORNIA

Start date - 07-01-65

End date - 06-30-67

Material on geometric transformations in ways suitable for study by high school teachers and superior students will be developed and organized. Materials will be prepared for teaching transformations and will be tested in a computer based laboratory. In this situation a student will be seated in a booth containing a typewriter keyboard, a microfilm display unit, and a cathode ray tube display unit. By touching the cathode tube with a special light pen or by typing simple directions, the student can change the position of the figure on the screen, introduce or eliminate parts and identify points and lines in answer to a question. After the machine program for the sequence of lessons has been prepared, it will be tested on selected high school students and teachers. Parallel written materials will be produced for use without the highly specialized machine. The source will consist of approximately 30 lessons of 1 hour each. The most important gain in introducing transformations is expected to be the practice that students will have in working with functions. (WB)

EP 000 127 24 \$152,421 Schult
 COMPUTER SCIENCE INSTRUCTION IN ELEMENTARY GRADES.

Investigator - Starkweather, J. A.
 California University, San Francisco

Bureau No. - BR-5-0652

Proposal date - 08-10-65

Curriculum Branch, DESR

California Congressional District No. 6

Contract OEC-6-10-131

FY66 - \$57,159. 09-01-65.06-30-66* FY67 - \$76,212.

07-01-66.06-30-67* FY68 - \$19,050. 07-01-67.08-31-67

Descriptors - *COMPUTERS, COMPUTER PROGRAMS, *ELEMENTARY EDUCATION, ELEMENTARY SCHOOL STUDENTS, ELEMENTARY SCHOOL TEACHERS, *ELEMENTARY GRADES, *CURRICULUM DEVELOPMENT, SAN FRANCISCO, CALIFORNIA

Start date - 09-01-65

End date - 08-31-67

The use of a small digital computer for problem solving using different ability levels of pupils in grades four through eight will be evaluated. Concern for instructional content will not be relevant to the study design. Specifically, the objectives will be to construct procedures for computation of both numerical and non-numerical problems and to investigate the characteristics of a computer programming language which can best develop curriculum materials and teaching techniques. A group of volunteer elementary teachers will be introduced to a computer language which makes use of natural english expression. Teachers will then introduce content appropriate to their own classroom situation and prompt their pupils to attempt to construct questions and evaluate computer responses. Each child will be exposed to the computer by developing programs. Evaluation will be conducted to determine the effect of computer instruction on each student's ability to handle problems and to develop logical and original solutions. This investigation will further knowledge about methods of developing algorithms using the computer as a device for immediate testing of logical thought as well as knowledge of specific information. (HB)

EP 000 142

24

\$227,723

Schult

DEVELOPMENT OF MATHEMATICAL CONCEPTS IN CHILDREN.

Investigator - Suppes, Patrick
Stanford University, California

Bureau No. - BR-5-0679

Proposal date - 11-20-61

Instructional Materials and Practices Branch, DESR

California Congressional District No. 10

Contract OEC-3-10-009

FY64 - \$45,544. 07-01-63.06-30-64* FY65 - \$45,544.

07-01-64.06-30-65* FY66 - \$45,544. 07-01-65.06-30-66*

FY67 - \$45,547. 07-01-66.08-31-67

Descriptors - *CONCEPT FORMATION, *MATHEMATICAL CONCEPTS, *MATHEMATICS
INSTRUCTION, *STIMULUS DEVICES, *VISUAL DISCRIMINATION, CALIFORNIA,
ELEMENTARY SCHOOL STUDENTS, MARKOV PROCESS, MATHEMATICS MATERIALS,
STANFORD, VISUAL PERCEPTION

Start date - 07-01-62

End date - 08-31-67

Stimulus sampling theory in childrens' development of mathematical concepts will be analyzed. The factors of study will be as follows--(1) acquisition and transfer of elementary concepts of set theory by children 5 to 8 years of age, (2) acquisition and transfer of simple geometric concepts by children 4 to 9 years of age, and (3) learning of mathematical proofs by children 6 to 9 years of age. Experiments will involve 30 to 100 subjects each, with each subject being required to make a minimum of 30 to 100 responses. Series of stimulus presentations will be programmed on IBM cards, read out by an IBM reader connected with an 026 IBM punch, and relayed by a television camera which will pick up the stimulus pattern from the card and display it on a television screen to the child. The stimulus display, response made by the child, and the connection procedure utilized for each trial will then be punched on data cards. Other experimental equipment to be used will include time interval meters to measure the reaction time for each trial and apparatus for electrical or photographic recording of eye movements made by the subject in the process of making a response. Mathematical and statistical methods of analysis to be used will employ methods appropriate to stochastic processes, particularly Markov processes and chains of infinite order with a finite number of states. (GC)

EP 000 144

24

\$920,166

Schult

AN AUTOMATED PRIMARY-GRADE READING AND ARITHMETIC CURRICULUM FOR CULTURALLY DEPRIVED CHILDREN.

Investigator - Atkinson, Richard C.; Suppes, P.
Stanford University, California

Bureau No. - BR-5-0684

Proposal date - 03-20-64

Instructional Materials and Practices Branch, DESR

California Congressional District No. 10

Contract OEC-5-10-050

FY65 - \$156,276. 07-01-64.06-30-65* FY66 - \$583,670.

07-01-65.06-30-66* FY67 - \$180,220. 07-01-66.12-31-67

Descriptors - *BEHAVIORAL SCIENCES, *COMPUTER ASSISTED INSTRUCTION,
*CULTURAL DISADVANTAGEMENT, *CURRICULUM RESEARCH, *PRIMARY EDUCATION,
AUTOINSTRUCTIONAL METHODS, CURRICULUM DEVELOPMENT, DISADVANTAGED YOUTH,
INSTRUCTIONAL MATERIALS, LEARNING DIFFICULTIES, MATHEMATICS CURRICULUM,
PHONOTAPE RECORDINGS, READING PROGRAMS, SEQUENTIAL LEARNING, STANFORD.
Start date - 07-01-64 End date - 12-31-67

Detailed behavioral analysis will be undertaken to identify the points in beginning reading and mathematics curriculums that are particularly difficult for culturally deprived children in the primary grades to learn. Specifically, the investigation will apply to obstacles encountered by these children in acquiring basic skills in reading and mathematics, and the use of behavioral analysis and automated devices as means to overcome these obstacles. Emphasis will be placed on the preparation of available written materials in a sequential order on the preparation of auditory material to accompany the written materials. Behavioral analysis of student responses to curriculums will be accomplished by automated instrumentation. Both visual and auditory curriculum materials will be presented to pupils individually. Appropriate instruments are to be provided for recording pupil responses and response times. Given response sequences will be applied to methods of analysis much used in mathematical learning theory. By providing behavioral analysis in a setting that will be designed to accommodate individual differences, learning difficulties should be minimized. (HB)

EP 000 172 24 \$93,246 Neudling

A COMMUNICATIONS SYSTEM FOR HIGHER EDUCATION.

Investigator - Milfs, M. M.

California State College, Dominguez Hills

Bureau No. - BR-5-0791

Proposal date - 01-06-65

Research Branch, DHER

California Congressional District No. 38

Contract OEC-5-10-300

FY65 - \$19,974. 03-01-65.06-30-65* FY66 - \$47,761.

07-01-65.06-30-66* FY67 - \$25,511. 07-01-66.06-30-67

Descriptors - *COLLEGE ADMINISTRATION, *COLLEGE HIGH SCHOOL COOPERATION,
*COMPUTER ORIENTED PROGRAMS, *COMPUTER PROGRAMS, *COLLEGES, ADMINISTRA-
TION, PROGRAM ADMINISTRATION, SCHOOL ADMINISTRATION, ADMINISTRATIVE
POLICY, ADMINISTRATIVE PERSONNEL, EDUCATIONAL EXPERIMENTS, EDUCATIONAL
FACILITIES, EDUCATIONAL EQUIPMENT, EDUCATIONAL RESOURCES, SYSTEMS
ANALYSIS, SYSTEMS APPROACH, SYSTEMS CONCEPTS, SYSTEMS DEVELOPMENT,
DOMINGUEZ HILLS

Start date - 03-01-65

End date - 06-30-67

The primary goal of this project is to develop an operating information system at the California State College at Palos Verdes in order that instructional and management decisions may be based upon data which are pertinent, timely, and comprehensive. This information system will be based upon an analysis of both the internal requirements of the college and the external requirements as they relate to the total state college system and other governmental and non-governmental agencies which request or require information. The research has been so designed that the information system can serve as a data resource which can be utilized in educational research for decision making. The principle underlying the project is three-dimensional. The information will be classified, it will be stored in such a way as to be evaluated in reference to its magnitude and its relationship to other information similarly stored. (LM)

EP 000 200 24 \$272,130 Adrian
A DEVELOPMENTAL STUDY OF MEDICAL TRAINING SIMULATORS FOR ANESTHESIOLOGISTS.
Investigator - Abrahamson, Stephen
University of Southern California, Los Angeles
Bureau No. - BR-5-0917 Proposal date - 66
Instructional Materials and Practices Branch, DHER
California Congressional District No. 21
Contract OEC-6-10-135
FY66 - \$131,035. 09-01-65.06-30-66* FY67 - \$136,731.
07-01-66.06-30-67* FY68 - \$4,364. 07-01-67.01-31-68
Descriptors - *COMPUTERS, *EDUCATIONAL EQUIPMENT, *MEDICAL EDUCATION,
*SIMULATION, *STUDENT EVALUATION, ANESTHESIOLOGY, ELECTRONIC EQUIPMENT,
LOS ANGELES, STUDENT REACTION, STUDENT VOLUNTEERS
Start date - 09-01-65 End date - 01-31-68

This experimental and developmental project will demonstrate the practicability of using a computer (which simulates a patient) to teach medical students necessary skills in administering drugs without discomfort and danger to a patient. A room, closely resembling an actual operating amphitheater, will be used to house the computer-controlled, patient machine. About 15 first-year residents in anesthesiology will be the subjects in a test of learning which results from student interaction with the machine. Toward the conclusion of their training the residents will be observed and tested in an actual operating room. They will be compared with a control group trained in a traditional manner. Student and faculty competence will be determined by interviews. Avoidance of discomfort and harmful errors with respect to the patient-machine will be registered by another computer. Information about the system will be provided by inspections of other anesthesiologists, administrative personnel, and faculty members of California medical schools. The results will be published and presented at appropriate meetings. (HB)

EP 000 241 56 \$9,450 Adrian
COMPUTER AIDED INSTRUCTION FOR A COURSE IN BOOLEAN ALGEBRA AND LOGIC
DESIGN.
Investigator - Roy, Rob
Rensselaer Polytechnic Institute, Troy, New York
Bureau No. - BR-5-1081 Proposal date - 66
Instructional Materials and Practices Branch, DHER
New York Congressional District No. 30
Grant OEG-1-6-051081-0660
FY66 - \$9,450. 04-15-66.09-15-67
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *COMPUTER ORIENTED PROGRAMS,
*INSTRUCTIONAL TECHNOLOGY, *PROGRAMED INSTRUCTION, ACADEMIC ACHIEVEMENT,
AUTOINSTRUCTIONAL AIDS, BACKGROUND, COLLEGE STUDENTS, COMPUTERS, NEW YORK,
PROGRAMED MATERIALS, PROGRAMING, TROY
Start date - 04-15-66 End date - 09-15-67

Evidence will be obtained on the usefulness of computer-aided instruction for entering students (college freshmen and graduate students) with insufficient academic backgrounds to begin a regular curriculum sequence. This pilot study will use the subject of Boolean algebra and logic as a prerequisite for graduate sequences in the fields of digital computers, automation, and learning machines. A sample of 40 students will be drawn from among those seniors and graduate students who would regularly be taking two logic design courses in sequence. The sample will be divided into two categories--(1) students who will take the logic design courses in normal sequence, and (2) students who will take a computer-aided course, equal to the first course, and the regular second course simultaneously. The experimental computer-aided course will be evaluated by comparing student scores on a comprehensive examination administered on the material of the regular first course, an student performance in the second course. Standard statistical measures will be applied. (GC)

EP 000 256 56 \$32,384 Adrian
METHODS OF PRESENTING PROGRAMED INSTRUCTIONAL MATERIALS BY TEACHING MACHINE
AND COMPUTER.

Investigator - Marzocco, Frank N.; Davis, Robert H.
Michigan State University, East Lansing, Human Learning Research Institute
Bureau No. - BR-5-1119 Proposal date - 66

Instructional Materials and Practices Branch, DHER

Michigan Congressional District No. 6

Grant OEG-3-6-051119-1211

FY66 - \$32,384. 06-01-66.12-31-67

Descriptors - *COMPUTER ORIENTED PROGRAMS, *INDIVIDUAL CHARACTERISTICS,
*LEARNING PROCESSES, *PROGRAMED INSTRUCTION, COGNITIVE PROCESSES, COLLEGE
STUDENTS, EAST LANSING, INDIVIDUAL DIFFERENCES, MICHIGAN, PROGRAMED
MATERIALS, STUDENT CHARACTERISTICS

Start date - 06-01-66

End date - 12-31-67

Determinations will be made on the following points--(1) whether certain major, independent parameters of programed instruction interact with college students' individual differences, (2) whether college students are able to select the method of programed instruction which best suits their learning conditions, and (3) what roles computer-assisted instruction (CAI) actually plays with respect to this population. About 600 enrollees in remedial algebra will serve as the experimental sample. At least 60 more algebra students will be observed in control groups for cross-validation purposes. Two treatments of programed learning materials will be prescribed for part of the experimental sample, and two additional treatments will be offered which emphasize subject choice in selecting the materials. Factors to be measured during treatments will include exit behavior, performance, attitudes, and scores on criterion tests. Such variables as sex, grade-point average, age, and personality differences will be considered, as well. Correlational technique and regression lines will be employed to analyze the resulting data. Where inconsistencies are indicated on the "during-treatment" factors, the student option variable will determine if the computer is necessary to help students select their proper program treatment. This research should provide important implications in terms of the effective adaptation of computers to educational programs. (HB)

EP 000 265 24 \$149,696 Schult
A PROJECT TO DEVELOP AND EVALUATE A COMPUTERIZED SYSTEM FOR INSTRUCTIONAL
RESPONSE AND ANALYSIS.

Investigator - Easley, J. A.

Illinois University, Urbana

Bureau No. - BR-5-1179

Proposal date - 65

Instructional Materials and Practices Branch, DESR

Illinois Congressional District No. 22

Contract OEC-6-10-184

FY66 - \$73,970. 10-01-65.09-30-66* FY67 - \$75,726.

10-01-66.09-30-68

Descriptors - *COMPUTER ORIENTED PROGRAMS, *INSTRUCTIONAL MATERIALS,
*PROGRAMED INSTRUCTION, *SYSTEMS ANALYSIS, *SYSTEMS DEVELOPMENT,
COMPUTER PROGRAMS, ILLINOIS, URBANA

Start date - 10-01-65

End date - 09-30-68

A computerized system will be developed and tested for diagnosing faults in lesson materials, including texts, workbooks, teacher handouts, and tests. The procedure will be designed to provide detailed feedback to authors on command, thus facilitating an analysis of student response to his materials. The data provided will serve as a basis for revision and improvement of the materials. The research and development procedures will consist of adapting a computer-based instructional system to achieve the capability of supplying diagnoses of student lesson materials. The adaptation of the system and the development of system programs will result in a "system for instructional response analysis." One phase will be the development of a control logic for use with general text materials. Authors and evaluators in a broad range of subject-matter areas will collaborate in developing the system of diagnosis and testing the capability of the system. (GC)

EP 000 316 40 \$ 69,540 Mueller

COMPUTER TRANSLATION, GRADE TWO BRAILLE FROM PRINT.

Investigator - Schack, Ann; Schack, Joseph

American Printing House for Blind, Louisville, Kentucky

Bureau No. - BR-6-1190

Proposal date - 66

Handicapped Children and Youth Branch, DESR

Kentucky Congressional District No. 6

Grant OEG-2-6-061190-1578

FY66 - \$24,600. 06-01-66.05-31-67* FY67 - \$20,340.

06-01-67.05-31-68* FY68 - \$24,600. 06-01-68.05-31-69

Descriptors - MATERIAL DEVELOPMENT, *BRAILLE, READING, BLIND, COMPUTERS,
INFORMATION PROCESSING, *AUTOMATION, *DATA PROCESSING, *READING PROCESSES,
*EDUCATIONAL IMPROVEMENT, SPECIAL EDUCATION, LOUISVILLE, KENTUCKY

Start date - 06-01-66

End date - 05-31-69

An advanced data processing operation will be developed for the translation of print to "grade two" braille such that--(1) translations will conform to high standards of quality, (2) materials of broad range of content and format can be accommodated, and (3) the greatest possible degree of efficiency will exist between the operation and the system emphasized. Specifically, ways of automating the translation phase of the braille plate-making process will be studied. A study series will be conducted, directed toward--(1) extending of a pioneer translation program so that a wider range of materials can be translated, (2) exploration of new approaches to programing the translation of print to grade two braille, (3) refinement of the translation program to maximize accuracy of translation and reduce the human intervention required, and (4) analysis of the economics of the use of automated braille production systems. The project will contribute to the development of programs for computer translation of print to braille when combined with automated braille plate production, will increase the time needed to produce braille materials and increase production capabilities of braille publishers. (HB)

EP 000 331 56 \$64,940 Cummings
METHODS OF PRESENTING PROGRAMED SCIENCE MATERIALS TO FOURTH GRADE PUPILS
OF VARYING ABILITY AND ACHIEVEMENT.

Investigator - MacDougall, Mary A.
Virginia University, Charlottesville

Bureau No. - BR-6-1310

Proposal date - 08-31-65

Research Branch, DESR

Virginia Congressional District No. 8

Grant OEG-2-6-061310-1743

FY66 - \$33,448. 06-15-66.06-14-67* FY67 - \$31,492.

06-15-68.04-14-68

Descriptors - *PROGRAMED MATERIALS, *COMPUTER ORIENTED PROGRAMS, *OPTIONAL
BRANCHING, STUDENT CHARACTERISTICS, *SCIENCE INSTRUCTION, *TEACHING METHODS,
ACADEMIC ABILITY, ACADEMIC ACHIEVEMENT, GRADE 4, CHARLOTTESVILLE, VIRGINIA,
BLOOM'S TAXONOMY

Start date - 06-15-66

End date - 04-14-68

The objectives of this project will be to determine--(1) methods of pro-
gramed instruction which are suitable for various levels of ability, achievement,
of knowledge, and conceptual attainment, and (2) the effectiveness of these
instructional methods as remedial branches. High- and low-ability, fourth
grade students with comparable expected achievement will use programed science
materials of four different branching types. Science concepts will be classified
using "Bloom's taxonomy." Tutorial sessions will follow, and a final evalua-
tion will occur with students of varying ability levels using prepared materials.
(LP)

EP 000 333 24 \$74,081 Beezer
ANALYSIS OF ESSAYS BY COMPUTER.
Investigator - Page, Ellis B.
Connecticut University, Storrs, Bureau of Educ. Research
Bureau No. - BR-6-1318 Proposal date - 04-08-66

Basic Studies Branch, DESR
Connecticut Congressional District No. 2
Contract OEC-1-6-061318-1214
FY66 - \$74,081. 06-16-66.10-01-67

Descriptors - *COMPOSITION (LITERARY), *COMPUTER PROGRAMS, *DATA ANALYSIS,
*ESSAYS, *GRADING, LINGUISTICS, MEASUREMENT, RATING SCALES, STORRS, WRITING
SKILLS

Start date - 06-16-66 End date - 10-01-67

The proposed work, entitled "Project Essay Grade II," will continue research related to the computer analysis of english exposition. In general terms, the objectives of this program are to--(1) further identify important characteristics of student prose which are analyzable through specially devised computer programs, (2) develop computer programs for measurement of these qualities or related variables as they occur in school essays, (3) analyze the computer-generated objective data in relation to subjective measures of the essay dimensions, (4) develop through this procedure greater understanding of the human rating process as applied to objectively describable prose characteristics, (5) study those aspects of essay description which appear most promising for useful feedback to teachers and students, and explore the feasibility of computer commentary about student essays, and (6) set forth larger strategies for the more promising future explorations of computer analysis of essays. Hundreds of student essays on assigned topics will be rated independently on content, style, organization, mechanics, and overall quality. These ratings will form the basis of the computer analysis programs to be developed. (WB)

EP 000 336 24 \$125,320 Beezer
A STUDY OF SOCIAL DIALECTS IN DETROIT.
Investigator - Shuy, Roger W.
Michigan State University, East Lansing
Bureau No. - BR-6-1347 Proposal date - 08-25-65

Basic Studies Branch, DESR
Michigan Congressional District No. 6
Contract OEC-3-6-061347-0636
FY66 - \$121,540. 03-22-66.03-31-67* FY67 - \$3,780.
04-01-67.12-31-67

Descriptors - *DIALECT STUDIES, *LANGUAGE RESEARCH, *LINGUISTICS, *SOCIAL
DIFFERENCES, *URBAN CULTURE, EAST LANSING, LANGUAGE PATTERNS, MICHIGAN,
SPEECH HABITS

Start date - 03-22-66 End date - 12-31-67

The linguistic features (pronunciation, grammar, vocabulary, and syntax) of the various English-speaking subcultures of Detroit will be delineated on this research program. In addition, it will--(1) seek efficient means of gathering language data in cities, (2) investigate effective uses of computers in the storing, retrieval, and analysis of language data in an urban dialect study, (3) provide actual language data for practical applications in the classroom, and (4) determine the linguistic clues to social class, the function of language in establishing social boundaries, and the processes of language in an urban area. After a developmental phase and the training of field workers are completed, language data will be gathered by structured linguistic interviews, questionnaires, conversational interviews, multiple choice tests, and tape recording. Consultants and staff will determine analysis techniques and procedures during the developmental stage of the project. (WB)

EP 000 344 24 \$639,726 Boerrigter

EDUCATIONAL INFORMATION PROJECT.

Investigator - Foley, Walter J.

Iowa University, Iowa City

Bureau No. - BR-6-1502

Proposal date - 10-65

Organization and Admin. Studies Branch, DESR

Iowa Congressional District No. 1

Contract OEC-3-6-061502-0429

FY66 - \$435,837. 02-02-66.01-31-67* FY67 - \$123,889.

02-01-67.06-30-68* FY68 - \$80,000. 07-01-68.08-31-69

Descriptors - *EDUCATIONAL RESOURCES, *INFORMATION DISSEMINATION,
*INFORMATION RETRIEVAL, *INFORMATION STORAGE, *RESOURCE MATERIALS,
CARDPAC SYSTEM, COMPUTERS, EDUCATIONAL PROGRAMS, EDUCATIONAL RESEARCH,
INFORMATION PROCESSING, INSTRUCTIONAL MATERIALS, IOWA, IOWA CITY,
RESOURCE CENTERS

Start date - 02-02-66

End date - 08-31-69

This project will develop, field test, and initiate a system in which a central agency can gather, process, integrate and disseminate educational information. This information will be used by students, teachers, and school districts from the elementary school population in an entire state. It will be designed to continue the Cardpac system of educational accounting begun under Grant E-301 dated April 1964. The procedures are summarized into four phases--(1) the proposal stage involving the design, consultation, and collating of information, (2) the developmental stage including activities such as the development and review of related studies, (3) the administration stage, and (4) the analysis stage which allows for the feedback of information about pupils at the local, district, and state levels. (HB)

EP 000 362 24 \$1,624,604 Johnson
THE DEVELOPMENT AND EVALUATION OF A SCIENCE CURRICULUM FOR GRADES SEVEN,
EIGHT, AND NINE.

Investigator - Burkman, Ernest
Florida State University, Tallahassee

Bureau No. - BR-6-1762

Proposal date - 12-02-65

Instructional Materials and Practices Branch, DESR

Florida Congressional District No. 2

Contract OEC-2-6-061762-1745

FY67 - \$219,174. 06-01-67.08-31-67* FY68 - \$655,658.

09-01-67.08-31-68* FY69 - \$166,820. 09-01-68.08-31-69*

FY70 - \$166,820. 09-01-69.08-31-70

Descriptors - *COMPUTER ASSISTED INSTRUCTION, *CURRICULUM DEVELOPMENT,
*JUNIOR HIGH SCHOOLS, *SCIENCE CURRICULUM, *SCIENCE PROGRAMS, ACHIEVEMENT,
APTITUDE, FLORIDA, INSTRUCTION, SCIENCE EDUCATION, TALLAHASSEE

Start date - 06-20-66

End date - 08-31-70

The development and evaluation of a coordinated science curriculum for grades seven through nine is planned. The objectives are--(1) to instill an understanding of science, scientists, and the scientific enterprise, (2) to develop an understanding of selected principles of science, and (3) to increase the student's facility in using certain intellectual skills related to the scientific process. The subjects will be physical science for the seventh and eighth grades and earth and biological sciences for the ninth grade. It is planned to utilize computer-assisted instructional methods to analyze individual student performance on each step of the curricular structure and correlate response patterns with measures of achievement and specific attitudes. (GC)

EP 000 363 24 \$203,204 Carnett
STUDY OF SCHOOL INTEGRATION.

Investigator - Pettigrew, Thomas F.

Harvard University, Cambridge, Massachusetts

Bureau No. - BR-6-1774

Proposal date - 06-03-66

Basic Studies Branch, DESR

Massachusetts Congressional District No. 8

Contract OEC-1-6-061774-1887

FY66 - \$96,908. 06-27-66.06-26-67* FY67 - \$75,454.

06-27-67.06-26-68* FY68 - \$30,842. 06-27-68.06-26-69

Descriptors - *ECOLOGY, *NEGROES, *OPINIONS, *PSYCHOLOGICAL STUDIES,
*RACIAL INTEGRATION, CAMBRIDGE, COMPUTER ORIENTED PROGRAMS, COMPUTER
PROGRAMS, DEMOGRAPHY, ECOLOGICAL FACTORS, INTEGRATION EFFECTS,
INTEGRATION STUDIES, PUBLIC OPINION, RURAL POPULATION, SCHOOL
INTEGRATION, URBAN POPULATION

Start date - 06-27-66

End date - 06-26-69

An attempt will be made in this study to develop empirically-derived models of school integration processes in both the south and the urban north. These social psychological models will combine ecological and demographic census materials with opinion survey results. An attempt will be made to understand the integration patterns of schools in a wider perspective of structural and opinion change in American race relations. The general design of the research will involve the accumu-

lation, organization, and formulation of a computer data system which will process a vast array of both ecological and opinion data. The operational system will be used to test rival theories, answer specific and practical questions, and feed in new data relevant to the integration process. All counties which had 200 or more Negroes in 1960 will be the units of analysis for the South. Voting precincts within cities of over 25,000 people will be the units of analysis for the urban North. (JC)

EP 000 474 24 \$7,620 Neudling

STUDY OF A NEW APPROACH TO CLASS SCHEDULING PROBLEMS.

Investigator - Kent, Allen

Pittsburgh University, Pennsylvania, Knowledge Avail. Systems Center

Bureau No. - BR-5-8199

Proposal date - 05-24-65

Research Branch, DHER

Pennsylvania Congressional District No. 14

Contract OEC-5-10-334

FY65 - \$7,620. 06-01-65.12-31-66

Descriptors - *SCHOOL REGISTRATION, ADMISSION (SCHOOL), COLLEGE

ADMINISTRATION, *COMPUTER PROGRAMS, *SCHEDULING, CLASS SIZE, SYSTEMS

ANALYSIS, *SYSTEMS DEVELOPMENT, PITTSBURGH, BEEKLEY INSITE

Start date - 06-01-65

End date - 12-31-66

The scheduling and registration of college students is a major problem today. The use of computers in school scheduling has shown various indications of being usable to react in real time and at low cost to changing parameters. The need, therefore, is for a low cost flexible system capable of examining the gamut of variables at one time, and of responding rapidly to unexpected changes that become evident only during registration. The purpose of this project is to investigate the use of such a system, the prototype Beekley Insite device, in school scheduling and registration applications. Instead of creating a mathematical model of a theoretical school scheduling problem, the scheduling and registration procedures of the University of Pittsburgh Graduate School of Library and Information Sciences will be examined initially. Course prerequisites and student schedule punched mylar tapes will be prepared for analysis on the Beekley Insite device, and proposals for both student schedules and courses will be either verified or negated. Potential ramifications resulting from the manipulations of the variables will be studied in an attempt to optimize the schedules and to determine the applicability of such a system to the real-time demands of student registration. (LP)

EP 000 477 56 \$8,400 Molnar

RANDOM VERSUS ORDERED SEQUENCING IN COMPUTER-ASSISTED INSTRUCTION.

Investigator - Wodtke, Kenneth H.

Pennsylvania State University, University Park

Bureau No. - BR-5-8334

Proposal date - 01-27-65

Research Branch, DHER

Pennsylvania Congressional District No. 17

Grant OEG-1-6-058334-1819

FY66 - \$8,400. 06-10-66.03-31-67

Descriptors - *COMPUTER PROGRAMS, EDUCATIONAL RESEARCH, *PROGRAMED INSTRUCTION, LEARNING, LEARNING DIFFICULTIES, *VERBAL ABILITY, ACHIEVEMENT TESTS, *MODERN MATHEMATICS, *AUDIOLOGY, COMPUTER ASSISTED INSTRUCTION, UNIVERSITY PARK

Start date - 06-10-66

End date - 03-31-67

A comparison of the effects of random versus ordered sequencing of instructional units is planned. The basic experimental design will be a 2x2 factorial design. The two independent variables will be (1) high and low student verbal ability, and (2) random versus ordered item sequence. The covariate or control variable will consider achievement pretests administered on the subject matter areas covered. Pretest scores will be controlled by means of analysis of covariance. Typing skill of students will be measured due to the typewriter mode of response input to the computer. The major dependent variable will be student post-test performance. The post-test will consist of two parts (1) one in which tests recall material covered in the program, and (2) one in which tests measure the ability of students to apply a principle taught in the program to new problems. Two instructional programs will be used -- modern mathematics and audiology. (HB)

EP 000 488

08

\$984,081

Otte

EXPERIMENTATION WITH COMPUTER-ASSISTED INSTRUCTION IN TECHNICAL EDUCATION.

Investigator - Mitzel, Harold E.; Brandon, George L.

Pennsylvania State University, University Park

Bureau No. - BR-5-0035

Proposal date - 03-15-64

Instructional Materials and Practices Branch, DCVR

Pennsylvania Congressional District No. 23

Contract OEC-5-85-074

FY65 - \$165,080. 06-01-65.05-31-66* FY66 - \$310,001.

06-01-66.06-30-67* FY68 - \$206,000. 07-01-67.06-30-68*

FY69 - \$303,000. 07-01-68.05-31-69

Descriptors - *COMPUTER ASSISTED INSTRUCTION, *COMPUTERS, *EVALUATION, *PROGRAMED INSTRUCTION, *VOCATIONAL EDUCATION, EDUCATIONAL PROGRAMS, EDUCATIONAL RESEARCH, UNIVERSITY PARK

Start date - 06-01-65

End date - 05-31-69

A 4-year research and development program will explore the use of experimental teaching strategies in computer-assisted instruction for technical education programs. The plan is (1) to evaluate the articulation of computer-assisted instruction with other educational strategies, and, by careful experimentation, determine optimum ways of presenting core courses in technical education curriculums, (2) to prepare curriculum materials for computer presentation with emphasis in the instruction of post-high school students in communication skills, technical mathematics and engineering science, (3) to train an interdisciplinary group of individuals to prepare course materials and to do research on computer applications in technical education, and (4) to disseminate the information and evidence concerning the innovation of computer-assisted instruction and its application to occupational education. The project would aid in relieving the severe shortage of trained research workers in occupational education and to communicate the innovation of computer-assisted instruction to the public and the professions. (HB)

EP 000 561 64 \$57,421 Lowdermilk
THE COMPUTER SIMULATION OF A STATEWIDE FILM LIBRARY NETWORK, A FEASIBILITY
STUDY.

Investigator - Oxhandler, Eugene
Syracuse University, New York, Research Institute
Bureau No. - BR-5-0272 Proposal date - 65
Dissemination Branch, DRTD
New York Congressional District No. 34
Contract OEC-5-16-024
FY65 - \$34,325. 05-01-65.06-30-65* FY66 - \$23,096.
07-01-65.12-31-66

Descriptors - LIBRARY FACILITIES, *DATA PROCESSING, *INSTRUCTIONAL FILMS,
*LIBRARY SERVICES, INFORMATION RETRIEVAL, *INFORMATION DISSEMINATION,
MEDIA RESEARCH, RESEARCH, *FILMS, FILMSTRIPS, COMPUTER PROGRAMS, BOARDS
OF COOPERATIVE EDUCATIONAL SERVICES, NEW YORK CITY
Start date - 05-01-65 End date - 12-31-66

An investigation is proposed for the purpose of determining feasibility
of utilizing a central computerized booking, distribution, acquisition, and
bookkeeping system for regional film libraries. All data on film holdings,
booking and bookkeeping techniques, usage, and budgets will be gathered
from existing boards of cooperative educational services. The Division of
Educational Communications of the New York State Department of Education
will contribute its productions and plans. A computer simulation program
will be designed and the entire system will be tried in several alternate
modes to determine the most economically feasible plan of operation. (RS)

EP 000 619 24 \$30,000 Colby
PROGRAM FOR TRAINING IN COMPUTER AND MULTIVARIATE APPLICATIONS TO
EDUCATIONAL RESEARCH.

Investigator - Cooley, William W.
American Institute for Research in Behavioral Sciences
Bureau No. - BR-6-2084 Proposal date - 66
Research Training Branch, DRTD
Pennsylvania Congressional District No. 14
Grant OEG-1-6-062084-1789
FY66 - \$30,000. 09-01-66.06-30-67

Descriptors - EDUCATIONAL RESEARCH, EDUCATIONAL PROGRAMS, *DOCTORAL DEGREES,
*GRADUATE STUDY, DATA PROCESSING, STATISTICAL ANALYSIS, FACTOR ANALYSIS,
EVALUATION METHODS, SEMINARS, *RESEARCH METHODOLOGY, *COMPUTER ORIENTED
PROGRAMS, INFORMATION PROCESSING, *RESEARCHERS, PITTSBURGH, PENNSYLVANIA,
PROJECT TALENT
Start date - 09-01-66 End date - 06-30-67

Postdoctoral training over a 4-year period is planned to acquaint educa-
tional researchers with the applications of computer systems. Each trainee
selected will complete an individual research project and a series of seminars.
Topics of the individual seminars will include research methods, computer
applications in educational research, statistical analysis, research methodology,
and a case study of a previous research project named "Project Talent." (RS)

EP 000 662 24 \$10,513 Lucas
A BIBLIOGRAPHY OF ENGLISH AND AMERICAN LITERATURE DISSERTATIONS ACCEPTED
BY AMERICAN, BRITISH, AND GERMAN UNIVERSITIES FROM 1864-1964.

Investigator - McNamee, Lawrence F.

East Texas State University, Commerce

Bureau No. - BR-5-8246

Proposal date - 05-26-65

Comparative Research Branch, DHER

No. 4, Texas

Contract OEC-5-10-355

FY65 - \$6,579. 06-01-65.05-31-66* FY66 - \$3,934.

06-01-66.11-30-66

Descriptors - BIBLIOGRAPHY, *DOCTORAL DEGREES, LITERATURE, *ENGLISH
LITERATURE, *AMERICAN LITERATURE, *COMPUTER PROGRAMS, DATA COLLECTIONS,
COMMERCE, TEXAS, GERMANY, GREAT BRITAIN

Start date - 06-01-65

End date - 11-30-66

A comprehensive bibliographic effort will be undertaken, compiling a listing of all literature dissertations (English and American) that have been accepted by American, British, and German universities over the last 100 years. Listings of this work will be arranged under 22 major headings, including Anglo-Saxon, Linguistics, Middle-English, Chaucer, Shakespeare, Renaissance, Milton, the Drama, and the Novel. Two IBM cards will be made for each dissertation and lists prepared by machine processing for each respective university. These listings will then be sent to the universities, which granted degrees from the dissertations, for approval and additions. New cards will be punched from the resulting information and a final listing prepared and furnished to institutions on a world wide basis. This project should lead to new dissertations, and may even lead to a new field of study.
(AW)

EP 000 711 24 \$8,958 Tripp
THE DEVELOPMENT OF A STUDENT ACCOUNTING SYSTEM.

Investigator - Anderson, Gordon

University of Texas, Austin

Bureau No. - BR-5-8176

Proposal date - 05-24-65

Research Branch, DHER

No. 10, Texas

Contract OEC-5-10-341

FY65 - \$8,958. 06-01-65.11-30-66

Descriptors - INFORMATION PROCESSING, *COLLEGE STUDENTS, *BACKGROUND,
PSYCHOLOGICAL TESTING, ACADEMIC APTITUDE, *COMPUTER PROGRAMS, QUESTIONNAIRES,
*INFORMATION SYSTEMS, AUSTIN, TEXAS

Start date - 06-01-65

End date - 11-30-66

A system of record-keeping for information about college students, including background data, psychological test scores, and past and current academic records will be developed in a form suitable for processing by computers. Information from the registrar of the University of Texas will be combined with data from the testing and counseling centers and with background information supplied by students on a specifically designed questionnaire. The latter will be in a form suitable for reading and automatic punching. The various items will be collated and read onto magnetic tapes. (AW)

EP 000 763 64 \$219,059 Lowdermilk
THE DEVELOPMENT AND PRESENTATION OF FOUR DIFFERENT COLLEGE COURSES BY
COMPUTER TELEPROCESSING.

Investigator - Mitzel, Harold

Pennsylvania State University, University Park

Bureau No. - BR-5-1194

Proposal date - 64

Dissemination Branch, DRTD

Pennsylvania Congressional District No. 17

Contract OEC-4-16-010

FY64 - \$97,014. 04-01-64.06-30-64* FY65 - \$119,984.

07-01-64.06-30-65* FY66 - \$2,061. 07-01-65.12-31-66

Descriptors - *COMPUTER ASSISTED INSTRUCTION, *INSERVICE TEACHER EDUCATION,
COLLEGE CURRICULUM, *COMPUTER PROGRAMS, *INSTRUCTIONAL MATERIALS, PROGRAMED
INSTRUCTION, *MEDIA RESEARCH, UNIVERSITY PARK, COURSEWRITER

Start date - 04-01-64

End date - 12-31-66

A study is to be made of the feasibility of using teachers, who are unfamiliar with computer systems, to prepare subject materials for computer presentation. Four college-level courses will be prepared for computer presentation using the Coursewriter computer language. The computer assisted instruction (CAI) incorporating computer-controlled audiovisual components, will be field tested. A manual for using Coursewriter computer language will then be prepared. The CAI techniques used will be demonstrated to government representatives, academic professors, school administrators, and teachers and others concerned with improving educational media. (WN)

EP 000 840 24 \$185,421 Schult
TEACHING MATHEMATICS THROUGH THE USE OF A TIME-SHARED COMPUTER.

Investigator - Richardson, Jesse O.

Massachusetts State Department of Education, Boston

Bureau No. - BR-5-0311

Proposal date - 08-24-64

Curriculum and Demonstration Branch, DESR

No. 9, Massachusetts

Contract OEC-5-10-320

FY65 - \$8,999. 06-01-65.06-30-65* FY66 - \$162,786.

07-01-65.06-30-66* FY67 - \$13,636. 07-01-66.01-31-67

Descriptors - MATHEMATICAL ENRICHMENT, *MATHEMATICS INSTRUCTION, *COMPUTER
BASED LABORATORIES, *PROGRAMED INSTRUCTION, *DIGITAL COMPUTERS, INSTRU-
TIONAL INNOVATION, GRADE 6, GRADE 9, GRADE 11, CURRICULUM ENRICHMENT,
ACHIEVEMENT, CAMBRIDGE, MASSACHUSETTS

Start date - 06-01-65

End date - 01-31-67

A mathematical laboratory will be developed based on a time-shared digital computer. Specific characteristics of this computer-based laboratory will be--(1) a terminal teletypewriter connected to the computer and operated on a time-shared mode to give participating mathematics students the feeling of personally working the computer, and (2) the availability of the computer on a continuous, real-time basis to encourage students to engage extensively in voluntary extracurricular use of the computer terminals. Students at three levels of maturity (Grades 6, 9, and 11) will participate. Experimental

and control groups of approximately 25 subjects each will be used for data gathering exercises. The resulting data will be analyzed. It is believed that the findings will clearly show that the use of a computerized mathematics curriculum leads students to acquire a more thorough grasp of subject matter as measured by standard achievement tests. (JH)

EP 000 933 24 \$35,942 Harbeck
RESEARCH TRAINING INSTITUTE FOR PERSONNEL OF THE STATE DEPARTMENTS OF
EDUCATION.

Investigator - Gregg, Russell T.

Wisconsin University, Madison

Bureau No. - BR-7-0602

Proposal date - 67

Research Training Branch, DHER

Wisconsin Congressional District No. 2

Grant OEG-3-7-070602-2979

FY67 - \$35,942. 03-09-67.07-14-67

Descriptors - *DATA PROCESSING, *EDUCATIONAL RESEARCH, *INSTITUTES (TRAINING PROGRAMS), *RESEARCH METHODOLOGY, *STATE OFFICIALS, MADISON, MEASUREMENT TECHNIQUES, PROGRAM ADMINISTRATION, RESEARCH SKILLS, RESEARCHERS, TRAINING
Start date - 03-09-67 End date - 07-14-67

The major purpose of the proposed research training institute is to improve the research knowledge and skills, and to stimulate the research interests of selected personnel of state departments of education in the Midwest. The institute will be offered in two separate 2-week sessions spaced 6 weeks apart in order that participants may return to their positions during the interim period. Instruction and learning will be centered on (1) measurement in educational research, (2) research design and methodology, (3) automatic data processing, and (4) research administration. The institute program will consist of group instruction in the mornings and individual and small-group laboratory work in the afternoons. In the laboratory sessions, participants will be encouraged and assisted to apply research concepts and procedures to their on-the-job problems. Approximately 30 trainees will be recruited and selected by the U.S. Office of Education to participate in the institute. Evaluative data will be obtained primarily by means of trainee responses to a questionnaire. (TC)

EP 000 940 24 \$19,878 Otte
THE RELATIONSHIP OF AUTOMATIC DATA PROCESSING TRAINING CURRICULUM AND
METHODOLOGY IN THE FEDERAL GOVERNMENT.

Investigator - Fast, James J.

Association for Education Data Systems

Bureau No. - BR-7-1059

Proposal date - 67

Instructional Materials and Practices Branch, DCVR

District of Columbia

Contract OEC-1-7-071059-3808

FY67 - \$19,878. 05-15-67.07-15-67

Descriptors - *CONFERENCES, *DATA PROCESSING, *FEDERAL GOVERNMENT,
*INSTRUCTIONAL TECHNOLOGY, *TRAINING, DISTRICT OF COLUMBIA, INSTRUCTIONAL
MATERIALS

Start date - 05-15-67

End date - 07-15-67

An invitational 5-day working conference on the relationship of automatic data processing (ADP) training curriculum and methodology in the Federal Government will be held in Washington, D. C. The ultimate objective of this conference is to make recommendations for the establishment of an effective and efficient ADP training program utilizing new instructional methodologies. This training program will concentrate on new multi-media approaches utilizing new technology, such as videotape, educational television, programmed instruction and computer assisted instruction. Topical specialists from outside the Federal Government and the Federal Government will be brought together for an in-depth discussion. Additional resource specialists will serve on four panel sessions. (TC)

EP 000 945

24

\$4,725

Harbeck

TRAINING INSTITUTE FOR RESEARCH PERSONNEL IN THE THEORY OF MULTIPLE
REGRESSION FORMULATION OF PROBLEMS AND COMPUTER UTILIZATION.

Investigator - Schmid, John

Colorado State College, Greeley

Bureau No. - BR-7-8318

Proposal date - 01-11-67

Research Training Branch, DHER

Colorado Congressional District No. 4

Grant OEG-1-7-078018-3714

FY67 - \$4,725. 08-14-67.08-19-67

Descriptors - *COMPUTER PROGRAMS, *COMPUTERS, *INSTITUTES (TRAINING
PROGRAMS), *RESEARCH SKILLS, *TEACHER EDUCATION, COMPUTER ORIENTED
PROGRAMS, EDUCATIONAL PROGRAMS, GREELEY, RESEARCH TOOLS, RESEARCHERS,
SERVICE EDUCATION, SPECIAL EDUCATION, STATISTICAL ANALYSIS, STATISTICAL
STUDIES

Start date - 08-14-67

End date - 08-19-67

An institute sponsored by Colorado State College will be established for educational researchers who have a basic knowledge of statistical processes but who have not yet become familiar with formulating and solving problems using multiple regression techniques with computers. The institute will accommodate 25 participants and the selection will be made to provide wide geographical representation for more rapid dissemination of modern research methodology. The institute will last for 1 week and in addition to providing participants with the Persub iterative regression program it will make available (1) other complementary programs and (2) help in modifying these programs at the participant's local facilities. (PM)

EP 000 946

24

\$6,838

Murnin

TEACHING LIBRARY USE TO UNDERGRADUATE--COMPARISON OF COMPUTER-BASED INSTRUCTION AND THE CONVENTIONAL LECTURE.

Investigator - Axeen, Marina E.

Illinois University, Urbana

Bureau No. - BR-7-E-050

Proposal date - 11-03-66

Regional Research, Office Associate Commissioner

Illinois Congressional District No. 22

Contract OEC-3-7-070050-3131

FY67 - \$6,838. 04-01-67.08-31-67

Descriptors - *LIBRARY INSTRUCTION, *COMPUTER ASSISTED INSTRUCTION, *PROGRAMED INSTRUCTION, *LECTURE, *TEACHING TECHNIQUES, STUDENTS, LIBRAL SCIENCE, INSTRUCTIONAL TECHNOLOGY, URBANA

Start date - 04-01-67

End date - 08-31-67

The purpose of this study is to explore the possibilities of using computer-based instruction as a medium for teaching the use of the library to undergraduates. Comparison of results will be made between the experimental group using a computer-based teaching system called PLATO (Programmed Logic for Automatic Teaching Operations) and the control group learning by the traditional lecture method. Statistical analysis will be made between the performance of the two groups to determine if computer-based instruction is just as effective, or more so, than the conventional method. (TC)

EP 000 955

64

\$944,469

Schult

STANDARD PROGRAM IN COMPUTER-ASSISTED INSTRUCTION.

Investigator - Suppes, Patrick; Atkinson, Richard

Stanford University, California

Bureau No. - BR-6-1493

Proposal date - 03-02-66

Instructional Materials and Practices Branch, DESR

California Congressional District No. 10

Contract OEC-4-6-061493-2089

FY66 - \$385,113. 06-29-66.06-28-67* FY67 - \$559,356.

06-29-67.06-30-68

Descriptors - *COMPUTER ASSISTED INSTRUCTION, *ELEMENTARY EDUCATION, *LANGUAGE ARTS, *READING INSTRUCTION, MATHEMATICS INSTRUCTION, STANFORD

Start date - 06-29-66

End date - 06-30-68

Computer-assisted instruction will be developed and evaluated in three closely related areas--(1) elementary school mathematics, (2) elementary-school reading, and (3) supplementary drill and maintenance exercises in mathematics and the language arts for the elementary school. The present proposal is submitted as an appendix to the prospectus for a national laboratory submitted October 13, 1965 to the Office of Education. The present proposal gives the details of the Stanford program for an interim basis until a decision is made about the constitution of a national laboratory. The primary focus of the Stanford program would be to develop and test computer-assisted curriculums in mathematics and language arts for the elementary school. The secondary focus proposed in the national laboratory prospectus would be suspended for the present. This means that an extensive effort in learning theory, the logic of complex concept formation, and systems analysis would be curtailed under the present program. (TC)

EP 000 969 24 \$157,392 Koenig
GREAT CITIES RESEARCH COUNCIL EDUCATIONAL COMMUNICATIONS PROJECT.
Investigator - Thornblad, Carl E.
Research Council of Great Cities Program for School Improvement
Bureau No. - BR-7-0715 Proposal date - 01-01-67
Equipment Development Branch, DITD
Illinois Congressional District No. 3
Contract OEC-3-7-070715-3048
FY67 - \$107,796. 01-09-67.03-31-68* FY68 - \$49,596.
04-01-68.06-30-68

Descriptors - *COMMUNICATIONS, *INFORMATION SYSTEMS, *INSTRUCTIONAL
IMPROVEMENT, *INSTRUCTIONAL TECHNOLOGY, *SYSTEMS DEVELOPMENT, CHICAGO,
COMPARATIVE ANALYSIS, COMPUTER ORIENTED PROGRAMS, COMPUTER PROGRAMS,
NATIONAL SURVEYS, PROGRAM PLANNING, RESEARCH OPPORTUNITIES, SCHOOL
IMPROVEMENT, STATUS, SYSTEMS CONCEPTS
Start date - 01-09-67 End date - 06-30-68

The relative status and inventory of current automated system developments
in member districts of the Research Council of the Great Cities Program for
School Improvement will be studied. In addition, planning and coordinating
activities will be provided to help develop a total communications capability
designed to facilitate the transmission and utilization of research and
application of multi-media for instructional improvement and related communi-
cations. A status and inventory study of computer and computer-oriented
information systems presently in use will be conducted, and planning activities
for identifying relative needs among the member districts will be pursued.
Task force areas will be developed under which specific individual and coopera-
tive projects may be undertaken. (GD)

EP 000 978 24 \$8,906 Neubeck
INTEGRATION OF PROGRAMED INSTRUCTION IN AN INDEPENDENT STUDY PROGRAM.
Investigator - Zinn, Karl L.
Michigan University, Ann Arbor
Bureau No. - BR-6-8280 Proposal date - 10-20-65
Instructional Materials and Practices Branch, DHER
Michigan Congressional District No. 2
Contract OEC-3-7-068280-0317
FY67 - \$89,906. 09-15-66.03-14-68

Descriptors - *INDEPENDENT STUDY, *INTEGRATED CURRICULUM, *INTERACTION,
*LIBRARY MATERIALS, *PROGRAMED INSTRUCTION, ANN ARBOR, COLLEGE STUDENTS
Start date - 09-15-66 End date - 03-14-68

A strategy will be devised to integrate programed materials into a program
of independent study, that will provide an effective combination of author
presentation, teacher direction, and student control. The strategy will be
applied to a first course in psychology to be evaluated, and will be docu-
mented and disseminated to encourage trial applications in other subject
areas. Particular attention will be given to the interaction of student
control and teacher direction in regard to self-study procedures and related
tutorial efforts, project work, and group discussion. An attempt will be
made to define the dimensions which underlie and confound superficial com-
parisons of treatments such as student and teacher control of self-study,
or alternative uses of teacher time. (TC)

EP 001 009 24 \$8,236 Harbeck
THE DESIGN AND IMPLEMENTATION OF INFORMATION SYSTEMS FOR PUPIL PERSONNEL
SERVICES.

Investigator - Walz, Garry R.
American Personnel and Guidance Association, Washington, D. C.
Bureau No. - BR-7-0227 Proposal date - 67

Research Training Branch, DHER

District of Columbia

Grant OEG-2-7-070227-1641

FY67 - \$8,236. 03-10-67.04-09-67

Descriptors - *COUNSELING SERVICES, *GUIDANCE PROGRAMS, *INFORMATION
SYSTEMS, *INTERDISCIPLINARY APPROACH, *STUDENT PERSONNEL SERVICES,
DISTRICT OF COLUMBIA, SIMULATION

Start date - 03-10-67

End date - 04-09-67

A special training project is to be held for 5 days preceding the Annual Convention of the American Personnel and Guidance Association. The training will focus upon (1) the development of an interdisciplinary conceptual base for pupil personnel work, (2) the use of tools for information searches including the use of the ERIC Clearinghouse for Guidance and Counseling, and (3) the design and implementation of an information system for use in programs of personnel services. The instructional format will include the use of lecture-demonstrations, laboratory sessions, team conferences, small group sessions, and simulation. Outcomes for the training are seen as (1) stimulation of interdisciplinary pupil personnel research, (2) widespread diffusion of information systems design, (3) dissemination of the scope and services of the Guidance and Counseling ERIC Center and hence greater national use of the Center, (4) the production of innovative training aids, and (5) development and application of an information system model to personal decision-making by counseling clients. (TC)

EP 001 013 56 \$81,002 Broderick
A PROTOTYPE SYSTEM FOR A COMPUTER BASED STATEWIDE PLAN FILM LIBRARY NETWORK--
A MODEL FOR OPERATION.

Investigator - Oxhandler, Eugene
Syracuse University, New York

Bureau No. - BR-7-0259

Proposal date - 08-66

Instructional Materials and Practices Branch, DESR

New York Congressional District No. 34

Contract OEC-1-7-070259-2656

FY67 - \$81,002. 12-16-66.12-15-67

Descriptors - *COMPUTER PROGRAMS, *FILMS, *LIBRARY EXTENSION, *SYSTEMS
ANALYSIS, *SYSTEMS DEVELOPMENT, MODELS, SYRACUSE

Start date - 12-16-66

End date - 12-15-67

Under a previous contract, the feasibility of a statewide film library network was demonstrated, numerous computer programs for analyzing and manipulating film usage were produced, and steps were taken toward the development of standardized procedures for booking, cataloging and accounting in film library operation. The proposed study will require (1) data collection and analysis, (2) programming and systems design, (3) modeling and pilot

testing, and (4) actual operations of the film library network. Substantial economies in effort and expenditures will be realized through the utilization of programs and procedures developed under the earlier contract. Data will be collected from additional libraries chosen to further refine the representativeness of the sample. Data analysis and modeling will continue using existing statistical and simulation programs. Additional programming will be accomplished as needed and selected collections will be prepared for admission to the system. Parallel computer booking procedures with other libraries will be investigated and from five to ten Board of Cooperative Services Centers will become operational links in the computer network. (TC)

EP 001 023 56 \$31,989 Clemens
A COMPUTER STUDY OF THE ALLOCATION OF CHANNELS AND PLACEMENT OF TRANSMITTERS
FOR 2500 MEGACYCLE FIXED-STATION SERVICE IN A METROPOLITAN AREA CONTAINING
MANY ELIGIBLE APPLICANTS FOR LICENSING.

Investigator - Boecklen, Warren

Cooperating Schools A-V Corporation of St. Louis County, Missouri

Bureau No. - BR-6-1519

Proposal date - 66

Research Utilization Branch, DITD

Contract OEC-3-7-001519-2004

FY67 - \$31,989. 10-10-66.06-01-67

Descriptors - *COMPUTER PROGRAMS, *COMPUTERS, *COOPERATIVE PLANNING,
*EDUCATIONAL TELEVISION, *TELEVISION RESEARCH, ST. LOUIS

Start date - 10-10-66

End date - 06-01-67

The objectives of this study are (1) to develop a computer program which would be useful, nationally, in developing channel allocation and transmitter placement plans for urban areas having many school systems, (2) to determine the pattern of channel allocations and transmitter placements which will accommodate the potential users of 2500 megacycle television in the St. Louis metropolitan area, and (3) to determine those instances in which leased coaxial cables represent a preferable system for interconnection of schools for closed-circuit television (as opposed to 2500 megacycle interconnection) in the metropolitan St. Louis area. This study is undertaken because there is no local agency which has the power to control channel allocations to diverse public, parochial and college-level school systems, and a method of channel allocations and transmitter placements must be cooperatively developed. This method must be attractive enough to command voluntary submission of the various school systems. Short of a valid computer study which dispassionately operates upon objective and uniform data, it is unlikely that a human or group of humans can provide a plan which will be accepted by all. Metropolitan areas, having numerous school systems which are eligible applicants for FCC licenses to operate multichannel 2500 megacycle stations, are likely to saturate the spectrum, thus using up all channels, in a manner which does not most efficiently place transmitters for the available channels. (TC)

EP 001 024 56 \$107,146 Cylke
ORIENTATION OF EDUCATORS AND BEHAVIORAL SCIENTISTS TO INFORMATION SYSTEMS.

Investigator - Altman, James W.

American Institute for Research in Behavioral Sciences

Bureau No. - BR-7-1038

Proposal date - 04-04-67

Library and Information Sciences Research Branch, DITD

Pennsylvania Congressional District No. 14

Contract OEC-1-7-071038-3914

FY67 - \$107,146. 06-01-67.05-31-68

Descriptors - *DATA COLLECTION, *EDUCATIONAL RESOURCES, *INFORMATION
RETRIEVAL, *INFORMATION SYSTEMS, *ORIENTATION, BEHAVIORAL SCIENCE RESEARCH,
DATA PROCESSING, EDUCATIONAL RESEARCH, PITTSBURGH

Start date - 06-01-67

End date - 05-31-68

Materials and methods will be developed for the orientation of educators and behavioral scientists to systems capable of providing information in support of their work. This effort is expected to facilitate the work of practicing educators, educational researchers, and scientists who provide much of the knowledge base upon which educational technology is built. The facilitation will be achieved by providing means by which educators and behavioral scientists can more readily learn about information resources and techniques for exploiting them for more effective educational and related work. The proposed effort will involve the gathering of data concerning available information services and systems, organization of presents to educators and behavioral scientists, selective trial presentation, obtaining of immediate and delayed assessments from persons to whom presentations are made, improvement of orientation materials on the basis of assessments, and final technical reporting of the study. (TC)

EP 001 044 52 \$7,808 Kennedy

THE DEVELOPMENT AND PILOT OPERATION OF A SYSTEM TO RECLASSIFY OLDER BOOKS
AND PROCESS NEW BOOKS UNDER THE LIBRARY OF CONGRESS CLASSIFICATION SYSTEM
FOR A PUBLIC LIBRARY CURRENTLY EMPLOYING THE DEWEY DECIMAL CLASSIFICATION.

Investigator - Sherman, Stuart C.

Providence Public Library, Rhode Island

Bureau No. - BR-7-8381

Proposal date - 03-15-67

Library and Information Sciences Research Branch, DITD

Rhode Island Congressional District No. 2

Grant OEG-1-7-078381-4544

FY67 - \$7,808. 06-30-67.06-30-68

Descriptors - *CATALOGING, *DATA PROCESSING, *DOCUMENTATION, *LIBRARY
PROGRAMS, *PILOT PROJECTS, DEWEY DECIMAL CLASSIFICATION SYSTEM, INFORMATION
SYSTEMS, LIBRARY OF CONGRESS CLASSIFICATION SYSTEM, PROVIDENCE, SURVEYS.

Start date - 06 30-67

End date - 06-30-68

This proposal is designed to uncover the problems a public library might encounter in reclassifying its collection from the Dewey Decimal System to the Library of Congress System, to note problems related to processing new books according to the new system, to apply data processing techniques to

the task, to establish procedures for reclassification, and to provide an accurate cost estimate for the conversion and processing. A survey of the existing classification situation will be undertaken, and a pilot processing test involving 1,000 cataloged and classified titles along with 500 new titles will be implemented. (GD)

EP 010 005 48 \$14,492 Hatch
SUB-REGIONAL SPEECH VARIATIONS IN VOCABULARY, GRAMMAR, AND PRONUNCIATION.
Investigator - Wood, Gordon R.
Southern Illinois University, Carbondale
Bureau No. - BR-5-0909 Proposal date - 10-15-65
Basic Studies Branch, DHER
Illinois Congressional District No. 21
Contract OEC-3-6-050909-0972
FY66 - \$14,492. 05-03-66.09-30-67
Descriptors - *COMPUTER PROGRAMS, *GRAMMAR, *PRONUNCIATION, *SPEECH HABITS,
*VOCABULARY, CARBONDALE, COMPARATIVE ANALYSIS, DATA PROCESSING, ENGLISH,
ILLINOIS, LANGUAGE PATTERNS, LINGUISTICS, ORAL ENGLISH, PHONETICS,
REGIONAL PROGRAMS
Start date - 05-03-66 End date - 09-30-67

A computer analysis will be made of the structures of vocabulary, syntax, and pronunciation in current American English. Such an analysis involves identifying the various structural patterns, relating them to known bodies as evidence about American Spoken English, and interpreting the results in terms of continuity and change. As the evidence permits, interpretations will also be made of the apparent influences of age, sex, and education on these matters. Typescripts will be prepared and coded from work copies of master tapes. Two computer runs, pilot and production, will be made involving card punching, machine processing, and printouts. These printouts will be made up of the following elements--(1) vocabulary, (2) grammar and syntax, (3) phonetic-phonemic materials, and (4) summaries of two or three of the first three elements. (JH)

EP 010 077 24 \$34,520 Adrian
CONFERENCE AND CURRICULAR AND INSTRUCTIONAL INNOVATIONS IN STATE COLLEGES
AND UNIVERSITIES.
Investigator - Hawkins, Earle T.
Towson State College, Baltimore, Maryland
Bureau No. - BR-6-2502 Proposal date - 03-11-66
Instructional Materials and Practices Branch, DHER
Maryland Congressional District No. 2
Contract OEC-2-6-062502-0958
FY66 - \$34,520. 05-02-66.01-31-67
Descriptors - *CONFERENCES, *CURRICULUM ENRICHMENT, *CURRICULUM RESEARCH,
*INSTRUCTIONAL IMPROVEMENT, *INSTRUCTIONAL INNOVATION, BALTIMORE, MARYLAND
Start date - 05-02-66 End date - 01-31-67

In addition to specific training and curriculum projects, the Bureau of Research initiated a series of feasibility studies for the development of a regional computer utility with the International Business Machines Corporation, the General Learning Corporation, and Computation Planning, Inc. The objective of the studies was to determine what computer services could be obtained from a centralized facility which would service 100,000 students within a 100-mile radius at a minimum cost and to evaluate the worth of these services. Interestingly enough, independent studies showed that it would be possible to provide the administrative computer services for the schools, junior colleges, and universities within this area during the post school hours while providing terminals for students for problem solving, computer concept and vocation training during the school day--all of this for about 1% of the school's operating budget. Currently the Bureau of Research is initiating a project to develop and demonstrate this concept. It is also contemplated that student guidance, computer-managed instruction, and library functions will also be ultimately added to the system.

Although the following table, "Bureau of Research Computer Related Projects" shows a decline in the total number of projects supported and the total dollars spent from Fiscal Year 1967 to Fiscal Year 1969, the total costs per project have increased. This reflects an awareness that educational computer projects deal with complex systems and that unless given sufficient support and time it is difficult to evaluate the effectiveness of the educational approach. Consequently, the trend has been away from small component oriented projects to larger system oriented projects.

APPENDIX D

Regional Educational Laboratories and Computer Activities

The Regional Laboratories which are supported by the U.S. Office of Education are designed to bridge the gap between educational research and educational practice. They have their own governing boards and staffs, develop their own policies and direction, and have established their own interlaboratory coordination mechanism.

REGIONAL EDUCATIONAL LABORATORIES

Appalachia Educational Laboratory (AEL)
1414 Kanawha Boulevard
Charleston, West Virginia 25325

Major program interests: To help rurally isolated school districts upgrade the quality of education through the establishment of "educational cooperatives" so the districts may share technical equipment, mobile facilities, and other resources.

Center for Urban Education (CUE)
105 Madison Avenue
New York, New York 10016

Major program interests: To improve educational practice in northern metropolitan school systems through programs that insure literacy in the early grades, promote teacher competence and morale, and assist schools to integrate their facilities and use mass media more effectively.

Central Atlantic Regional Educational Laboratory (CAREL)
1200 17th Street, N. W.
Washington, D. C. 20036

Major program interests: To develop an arts and humanities curriculum for children 3 to 8 in art, music, drama, dance, and literature.

Central Midwestern Regional Educational Laboratory (CEMREL)
10646 St. Charles Rock Road
St. Ann, Missouri 63074

Major program interests: To develop curricula in mathematics and aesthetics for students in grades K-12; to demonstrate computer assisted instruction for rural schools; to design teaching strategies for use with special student populations; to develop computer applications to serve educators in regional and state school planning, administration, and instruction.

Cooperative Educational Research Laboratory, Inc. (CERLI)
540 West Frontage Road
Northfield, Illinois 60093

Major program interests: To help speed tested innovation in schools by creating and introducing into schools two new roles for school personnel: leader of continuing education and evaluator.

Eastern Regional Institute for Education (ERIE)
635 James Street
Syracuse, New York 13203

Major program interests: To develop a model of individualized instruction in which the total resources of a school are harnessed to support the program; to design a system for installing and monitoring a new curriculum in schools of diverse characteristics.

Education Development Center (EDC)
55 Chapel Street
Newton, Massachusetts 02160

Major program interests: To develop programs designed to help specific communities to improve the quality of their schools, including the establishment of resource teams which can help each community in such areas as curriculum development, pre- and in-service training of teachers, and community attitudes.

Far West Laboratory for Educational Research and Development (FWLERD)
Claremont Hotel, 1 Garden Circle
Berkeley, California 94705

Major program interests: To improve the instructional skills of experienced teachers by developing self-instructional course packages based on microteaching techniques; to improve the means by which

school personnel are informed about tested alternatives in dealing with educational problems.

Michigan-Ohio Regional Educational Laboratory (MOREL)

3750 Woodward Avenue, Room 1408
Detroit, Michigan 48201

Major program interests: To develop a program for training experienced teachers to engage in continued analysis and improvement of their own behavior.

Mid-Continent Regional Educational Laboratory (McREL)

104 East Independence Avenue
Kansas City, Missouri 64108

Major program interests: To develop self-directed learning among a general student population, emphasizing the development of programs to train teachers in skills which foster self-directed learning in students.

Northwest Regional Educational Laboratory (NWREL)

400 Lindsay Building
710 Southwest Second Avenue
Portland, Oregon 97204

Major program interests: To develop strategies for training instructional leaders to instruct other professionals in the use of innovative and promising instructional practices; to improve the quality of instruction in small rural schools by developing individualized course materials and guidance programs; to aid agencies concerned with educating culturally different children by developing model school programs.

Regional Education Laboratory for the Carolinas and Virginia (RELCV)

Mutual Plaza
Durham, North Carolina 27701

Major program interests: To improve higher education in the Carolinas and Virginia by training personnel to apply institutional research and planning processes within colleges and universities; to select and install new educational materials and methods developed across the country in the elementary and secondary schools of the three States.

Research for Better Schools, Inc. (RBS)

121 South Broad Street
Philadelphia, Pennsylvania 19107

Major program interests: To field test and further develop a system of Individually Prescribed Instruction; to develop "research implementation" personnel to assist school administrators in identifying and solving educational problems.

Rocky Mountain Educational Laboratory (RMEL)

1620 Reservoir Road
Greeley, Colorado 80631

Major program interests: To develop programs that enable elementary schools to diagnose individual learning disabilities and to prescribe materials and methods that help children overcome such disabilities; to develop occupational education programs.

South Central Region Educational
Laboratory (SCREL)
302 National Old Line Building
Little Rock, Arkansas 72201

Major program interests: To develop early childhood compensatory education programs in basic skills and self-concept for three populations of rural poverty—the off-reservation Indian, the Delta Negro, and the white Ozarkian.

Southeastern Education Laboratory
(SEL)
3450 International Boulevard
Hapeville, Georgia 30054

Major program interests: To improve communication skills among educationally disadvantaged whites and Negroes in rural and urban schools; to improve interpersonal relations in disadvantaged schools between teachers, between students, and between teachers and students.

Southwest Educational Development
Laboratory (SEDL)
800 Brazos Street
Austin, Texas 78767

Major program interests: To develop programs in which the teacher, the instructional program, materials and activities are structured to meet the unique needs of Mexican-Americans, Negroes, and French Acadians; to develop applications of computer technology which meet the management needs of individual schools and the instructional needs of individual students.

Southwest Regional Laboratory for
Educational Research and Development
(SWRL)
11300 LaCienega Boulevard
Inglewood, California 90304

Major program interests: To develop a coordinated primary grade curriculum that includes communication skills, problem solving, and humanities elements; to develop a computer-managed instruction system to aid the teacher, and a computer-based planning system to assist the school administrator in decision-making; to develop instructional materials to train school personnel who use SWRL-developed products.

Southwestern Cooperative Educational
Laboratory (SWCEL)
117 Richmond Drive, NE.
Albuquerque, New Mexico 87106

Major program interests: To develop an improved first year school experience in the language arts with initial emphasis on oral language for Mexican-American and Indian children.

Upper Midwest Regional Educational
Laboratory (UMREL)
1640 East 78th Street
Minneapolis, Minnesota 55423

Major program interests: To develop new methods of teacher training which will improve teacher competency; to develop inservice programs to prepare school staffs to work more effectively with new curriculum and changing patterns of school organization.

REGIONAL EDUCATIONAL LABORATORIES

Computer Projects

Northwest Regional Educational Laboratory (NREL)

Relevant Educational Application of Computer Technology
Edward Seger FY'68 \$170,000 FY'69 \$170,000

Planning a computer utility system to serve a cluster of schools and colleges. It plans to have close relationships with the CUES project supported by the Division of Comprehensive and Vocational Education Research of the Office of Education. It is entitled "Relevant Educational Application of Computer Technology" (REACT).

Research for Better Schools, Inc. (RBS)

Development of CAI and CMI Applications for the IPI Curriculum
Gilbert Boyer FY'69 \$128,000

Developing a comprehensive instructional management system to support their IPI program. Developing cooperatively with Westinghouse and Philco Ford programs to develop CAI and CMI applications for IPI curriculum.

Regional Educational Laboratory for the Carolinas and Virginia (RELCV)

Computerized Information Systems FY'68 \$80,000 FY'69 \$131,000

Proposes to serve as a catalyst for developing a means for colleges throughout the 3-State region to utilize the computing power of TUCC. It is working cooperatively with South Carolina, North Carolina and Virginia to assist in the development of state-wide plans for utilization of computers in higher education. It is also trying to adapt GEMS system from OTIS for use by colleges and universities in the region.

Southwest Educational Development Laboratory (SEDL)

Field Testing CAI Applications and Development of Other Computer Applications in Elementary and Secondary Schools
Joseph Ward FY'68 \$156,768

Working cooperatively with the University of Texas CAI Center and the State Education Agency to field test CAI and other computer applications in elementary and secondary education.

Has developed a student scheduling program that has been adapted by the Texas Service Center in San Antonio.

Appalachia Educational Laboratory (AEL)

Planning the Use of a Mobile CAI System for In-Service Training
of Teachers in Math

William Bost proposed FY'69 \$81,610

Interested in installing an IBM 1500 system in a mobile
van to provide an in-service CAI math program for teachers.

Central Midwest Regional Educational Laboratory (CEMREL)

Herbert Olhman FY'68 \$200,000 FY'69 \$200,000

Planning the development of Computer Managed Instructional
Systems as part of the mathematics and aesthetic education
curriculums being developed by the Laboratories.

Southwest Regional Laboratory for Educational Research and Development (SWRL)

Development of an Instructional Management System
Development of a Computerized School Planning System

Richard Schutz FY'67 \$345,000 FY'68 \$407,000 FY'69 \$625,000

Developing a real-time student monitoring system to aid
teachers in individualized instruction. Developing a
(school) administrative information system.

Southeastern Educational Laboratory (SEL)

FY'68 \$25,000 FY'69 nothing

Did a feasibility study to develop a plan for a CAI
program. No computer-related activities being funded
in FY'69.

APPENDIX E

Research and Development Centers; ERIC Clearinghouses

RESEARCH AND DEVELOPMENT CENTERS

The names and address of the Research and Development Centers are given below; the first nine are supported by the Cooperative Research Program, the two others under the provision of the Vocational Education Act.

Learning Research and Development Center
208 M.I. Building
University of Pittsburgh
Pittsburgh, Pennsylvania 15213

Center for the Advanced Study of
Educational Administration
147B Hendricks Hall
University of Oregon
Eugene, Oregon 97403

Wisconsin Center for Research and
Development for Cognitive Learning
The University of Wisconsin
1404 Regent Street
Madison, Wisconsin 53705

Research and Development Center in
Educational Stimulation
Fain Hall
University of Georgia
Athens, Georgia 30601

Research and Development Center in
Teacher Education
303 Sutton Hall
University of Texas
Austin, Texas 78712

Stanford Center for Research and
Development in Teaching
Stanford University
770 Welch Road
Palo Alto, California 94304

Center for Research and Development in
Higher Education
University of California
4606 Tolmen Hall
Berkeley, California 94720

Center for the Study of the Evaluation
of Instructional Programs
145 Moore Hall
405 Hilgard Avenue
Los Angeles, California 90024

Center for the Study of Social
Organization of Schools
The Johns Hopkins University
3505 North Charles Street
Baltimore, Maryland 21218

Center for Research, Development, and
Training in Occupational Education
North Carolina State University
Raleigh, North Carolina 27607

Center for Research and Leadership
Development in Vocational and
Technical Education
980 Kenny Road
Ohio State University
Columbus, Ohio 43210

ERIC CLEARINGHOUSES

The network of ERIC Clearinghouses/and their locations is given below,
with subject areas shown--

ADULT EDUCATION

Syracuse University
107 Roney Lane
Syracuse, New York 13210

COUNSELING AND PERSONNEL SERVICES

611 Church Street
Ann Arbor, Michigan 48104

DISADVANTAGED

Teachers College
Columbia University
New York, New York 10027

EARLY CHILDHOOD EDUCATION

University of Illinois
805 West Pennsylvania Avenue
Urbana, Illinois 61801

EDUCATIONAL ADMINISTRATION

University of Oregon
Eugene, Oregon 97403

EDUCATIONAL FACILITIES

University of Wisconsin
606 State Street
Madison, Wisconsin 53703

EDUCATIONAL MEDIA AND TECHNOLOGY

Institute for Communication Research
Stanford University
Stanford, California 94305

EXCEPTIONAL CHILDREN

The Council for Exceptional Children
1201 16th Street, NW.
Washington, D.C. 20036

HIGHER EDUCATION

George Washington University
2029 G Street, NW.
Washington, D.C. 20006

JUNIOR COLLEGES

University of California at Los Angeles
405 Hilgard Avenue
Los Angeles, California 90024

LIBRARY AND INFORMATION SCIENCES

University of Minnesota
2122 Riverside Avenue
Minneapolis, Minnesota 55404

LINGUISTICS

Center for Applied Linguistics
1717 Massachusetts Avenue, NW.
Washington, D.C. 20036

READING

Indiana University
200 Pine Hall
Bloomington, Indiana 47401

RURAL EDUCATION AND SMALL SCHOOLS

Box AP, University Park Branch
New Mexico State University
Las Cruces, New Mexico 88001

SCIENCE EDUCATION

Ohio State University
1460 West Lane Avenue
Columbus, Ohio 43221

TEACHER EDUCATION

1156 16th Street, NW.
Washington, D.C. 20036

TEACHING OF ENGLISH

National Council of Teachers of English
508 South Sixth Street
Champaign, Illinois 61820

TEACHING OF FOREIGN LANGUAGES

Modern Language Association of America
62 Fifth Avenue
New York, New York 10011

VOCATIONAL AND TECHNICAL EDUCATION

Ohio State University
980 Kenny Road
Columbus, Ohio 43210

APPENDIX F

Abstracts of ESEA Title III Projects Involving Use of Computers
(FY 1966, FY 1967 and FY 1968 Approved as of September 20, 1968)

P A C E

Projects to Advance Creativity in Education

USE OF COMPUTERS IN
PACE PROJECTS FOR
INSTRUCTION,
ADMINISTRATION, AND
GUIDANCE AND COUNSELING

SR-68-2 PROJECTS FUNDED IN FY 1966,
FY 1967, AND FY 1968

Prepared by

Supplementary Centers and Services, Title III
of the Elementary and Secondary Education Act
of 1965

(Division of Plans and Supplementary Centers, BESE, USOE)

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM

As of September 20, 1968, there are 155 approved PACE computer projects costing \$22,271,778. The majority of these computer projects involve the use of computers for school administration, student programming, guidance, counseling, and testing, and classroom instruction in programming and computer technology.

PACE Projects Involving Data Processing

	<u>Number</u>	<u>Amount</u>
Planning Projects	67	\$ 4,472,308
Operational Projects	88	17,799,470
	<u>155</u>	<u>\$22,271,778</u>

The projects in this appendix are divided into 2 sections -- Use of Computers for Instruction, and Use of Computers for Administration and Guidance and Counseling. These sections are subdivided into the Fiscal Years 1966, 1967 and 1968. The OE number of each project is a number internal to the Office of Education. The school system involved and the person to contact for further information is included. The projects are also indexed according to State, project number and page.

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM
 FY 1966, FY 1967 and
 FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
U.S. TOTAL	155	\$22,271,778	67	\$4,472,308	88	\$17,799,470
Alabama	3	182,610	2	79,485	1	103,125
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0
California	14	1,808,359	6	529,518	8	1,278,841
Colorado	6	290,871	4	172,936	2	117,935
Connecticut	7	566,498	6	393,501	1	172,997
Delaware	3	396,690	1	19,200	2	377,490
District of Columbia	1	49,235	0	0	1	49,235
Florida	4	990,199	0	0	4	990,199
Georgia	1	59,647	1	59,647	0	0
Hawaii	1	85,150	1	85,150	0	0
Idaho	2	145,000	1	25,000	1	120,000
Illinois	5	1,291,480	2	168,186	3	1,123,294
Indiana	1	21,242	0	0	1	21,242
Iowa	3	706,904	0	0	3	706,904
Kansas	0	0	0	0	0	0
Kentucky	1	274,195	0	0	1	274,195
Louisiana	5	764,719	2	69,028	3	695,691
Maine	0	0	0	0	0	0
Maryland	3	631,232	0	0	3	631,232
Massachusetts	5	418,653	2	45,250	3	373,403
Michigan	5	1,400,617	1	26,744	4	1,373,873
Minnesota	5	801,816	3	151,988	2	649,828
Mississippi	4	562,385	1	39,970	3	522,415
Missouri	3	548,837	1	39,800	2	509,037
Montana	0	0	0	0	0	0
Nebraska	3	413,825	0	0	3	413,825
Nevada	1	62,965	0	0	1	62,965

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM (CONTINUED)
 FY 1966, FY 1967, and FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
New Hampshire	1	\$ 31,400	1	\$ 31,400	0	0
New Jersey	2	144,731	1	50,535	1	94,196
New Mexico	2	370,863	0	0	2	370,863
New York	16	2,335,404	6	811,453	10	1,523,951
North Carolina	1	169,308	0	0	1	169,308
North Dakota	0	0	0	0	0	0
Ohio	7	631,806	6	418,816	1	212,990
Oklahoma	1	50,000	1	50,000	0	0
Oregon	7	592,752	4	97,192	3	495,560
Pennsylvania	12	2,440,896	7	796,969	5	1,643,927
Rhode Island	1	29,040	1	29,040	0	0
South Carolina	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0
Texas	8	1,618,192	3	235,313	5	1,382,879
Utah	1	420,475	0	0	1	420,475
Vermont	1	24,502	1	24,502	0	0
Virginia	2	459,885	0	0	2	459,885
Washington	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0
Wisconsin	5	461,067	1	11,100	4	449,967
Wyoming	2	18,328	1	10,585	1	7,743
Guam	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0
Am Samoa	0	0	0	0	0	0
Trust T.O.P.	0	0	0	0	0	0
DOD	0	0	0	0	0	0
BIA	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM
FOR INSTRUCTIONAL PURPOSES FY 1966, FY 1967, and FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
U.S. TOTAL	69	\$10,896,654	22	\$ 1,726,934	47	\$ 9,169,720
Alabama	0	0	0	0	0	0
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0
California	7	803,065	3	134,485	4	668,580
Colorado	4	142,334	3	75,196	1	67,138
Connecticut	4	408,938	3	235,941	1	172,997
Delaware	2	377,490	0	0	2	377,490
District of Columbia	0	0	0	0	0	0
Florida	2	243,708	0	0	2	243,708
Georgia	0	0	0	0	0	0
Hawaii	1	85,150	1	85,150	0	0
Idaho	0	0	0	0	0	0
Illinois	1	46,000	1	46,000	0	0
Indiana	1	21,242	0	0	1	21,242
Iowa	1	199,990	0	0	1	199,990
Kansas	0	0	0	0	0	0
Kentucky	1	274,195	0	0	1	274,195
Louisiana	2	597,161	0	0	2	597,161
Maine	0	0	0	0	0	0
Maryland	2	593,656	0	0	2	593,656
Massachusetts	2	189,762	0	0	2	189,762
Michigan	3	801,380	1	26,744	2	774,636
Minnesota	3	706,053	1	56,225	2	649,828
Mississippi	1	333,823	0	0	1	333,823
Missouri	2	348,837	2	348,837	0	0
Montana	0	0	0	0	0	0
Nebraska	2	317,279	0	0	2	317,279
Nevada	1	62,965	0	0	1	62,965

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM
FOR INSTRUCTIONAL PURPOSES FY 1966, FY 1967, and FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
New Hampshire	0	0	0	0	0	0
New Jersey	1	94,196	0	0	1	94,196
New Mexico	1	71,363	0	0	1	71,363
New York	6	1,047,153	1	14,200	5	1,032,953
North Carolina	1	169,308	0	0	1	169,308
North Dakota	0	0	0	0	0	0
Ohio	3	355,420	2	142,430	1	212,990
Oklahoma	0	0	0	0	0	0
Oregon	3	271,684	1	26,124	2	245,560
Pennsylvania	5	1,087,523	1	500,000	4	587,523
Rhode Island	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0
Texas	1	139,865	0	0	1	139,865
Utah	1	420,475	0	0	1	420,475
Vermont	1	24,502	1	24,502	0	0
Virginia	1	347,709	0	0	1	347,709
Washington	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0
Wisconsin	3	314,428	1	11,100	2	303,328
Wyoming	0	0	0	0	0	0
Guam	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0
Trust T. O. P.	0	0	0	0	0	0
DOD	0	0	0	0	0	0
BIA	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM
FOR ADMINISTRATIVE AND GUIDANCE PURPOSES FY 1966, 1967, and 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
U.S. TOTAL	86	\$11,375,124	46	\$3,054,411	40	\$8,320,713
Alabama	3	182,610	2	79,485	1	103,125
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0
California	7	1,005,294	3	395,033	4	610,261
Colorado	2	148,537	1	97,740	1	50,797
Connecticut	3	157,560	3	157,560	0	0
Delaware	1	19,200	1	19,200	0	0
District of Columbia	1	49,235	0	0	1	49,235
Florida	2	746,491	0	0	2	746,491
Georgia	1	59,647	1	59,647	0	0
Hawaii	0	0	0	0	0	0
Idaho	2	145,000	1	25,000	1	120,000
Illinois	4	1,245,480	1	122,186	3	1,123,294
Indiana	0	0	0	0	0	0
Iowa	2	506,914	0	0	2	506,914
Kansas	0	0	0	0	0	0
Kentucky	0	0	0	0	0	0
Louisiana	3	167,558	2	69,028	1	98,530
Maine	0	0	0	0	0	0
Maryland	1	37,576	0	0	1	37,576
Massachusetts	3	228,891	2	45,250	1	183,641
Michigan	2	599,237	0	0	2	599,237
Minnesota	2	95,763	2	95,763	0	0
Mississippi	3	228,562	1	39,970	2	188,592
Missouri	1	200,000	0	0	1	200,000
Montana	0	0	0	0	0	0
Nebraska	1	96,546	0	0	1	96,546
Nevada	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM (CONTINUED)
 FOR ADMINISTRATIVE AND GUIDANCE PURPOSES FY 1966, 1967, and 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
New Hampshire	1	\$ 31,400	1	\$ 31,400	0	0
New Jersey	1	50,535	1	50,535	0	0
New Mexico	1	299,500	0	0	1	299,500
New York	10	1,288,251	5	797,253	5	490,998
North Carolina	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0
Ohio	4	276,386	4	276,386	0	0
Oklahoma	1	50,000	1	50,000	0	0
Oregon	4	321,068	3	71,068	1	250,000
Pennsylvania	7	1,353,373	6	296,969	1	1,056,404
Rhode Island	1	29,040	1	29,040	0	0
South Carolina	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0
Texas	7	1,478,327	3	235,313	4	1,243,014
Utah	0	0	0	0	0	0
Vermont	0	0	0	0	0	0
Virginia	1	112,176	0	0	1	112,176
Washington	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0
Wisconsin	2	146,639	0	0	2	146,639
Wyoming	2	18,328	1	10,585	1	7,743
Guam	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0
Trust T. O. P.	0	0	0	0	0	0
DOD	0	0	0	0	0	0
BIA	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM
 FY 1966, FY 1967 and
 FY 1968

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Alabama	4703-7	201
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California	1150	158
California	1479	191
California	1645	160
California	1701	193
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California	2710	162
California	4161	199
California	4391	200
California	5083	171
California	5752	174
California	6677	177
Colorado	399	157
Colorado	481	157
Colorado	3253	164
Colorado	3279	164
Colorado	5168	202
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Connecticut	136	155
Connecticut	146	181
Connecticut	954	158
Connecticut	995	158
Connecticut	2963	163
Connecticut	5282	203
Connecticut	6107	207
Delaware	1253	191
Delaware	3567	166
Delaware	5153	172
District of Columbia	2879	195
Florida	4355	199
Florida	6004	175
Florida	6139	207
Florida	6399	176
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Illinois	189	155
Illinois	1665	192
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Illinois	3530	197
Illinois	5546	204
Indiana	1820	160
Iowa	1557	192
Iowa	1880	193
Iowa	2000	161
Kentucky	5648	174
Louisiana	852	189
Louisiana	3765	198
Louisiana	3834	167
Louisiana	5195	172
Louisiana	6042	206
Maryland	4342	169
Maryland	5147	172
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Massachusetts	1819	193
Massachusetts	3688	167
Massachusetts	5208	202
Massachusetts	5760	205
Massachusetts	5762	174
Michigan	2524	163
Michigan	4241	199
Michigan	4301	169
Michigan	4475	200
Michigan	5353	173
Minnesota	239	156
Minnesota	546	188
Minnesota	1129	190
Minnesota	3987	168
Minnesota	6499	176
Mississippi	173	182
Mississippi	1653	192
Mississippi	3527	197
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Missouri	2293	161
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Nevada	1535	160
New Hampshire	505	186
New Jersey	924	190
New Jersey	5336	173
New Mexico	48	172
New Mexico	3592	166
New York	172	181
New York	180	182
New York	190	183
New York	326	184
New York	461	186
New York	1146	191
New York	1454	159
New York	1480	159
New York	1494	159
New York	1528	159
New York	2475	194
New York	2947	163
New York	3362	165
New York	6141	207
New York	6306	208
New York	6326	209
North Carolina	6379	175
Ohio	18	179
Ohio	3210	195
Ohio	3675	166
Ohio	4053	168
Ohio	4512-7	201
Ohio	5696	198
Ohio	6700	177
Oklahoma	5685	204
Oregon	601	188
Oregon	1191	158
Oregon	1579	192
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Pennsylvania	262	156
Pennsylvania	366	185
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Pennsylvania	950	190
Pennsylvania	1148	191
Pennsylvania	1324	158
Pennsylvania	1970	161
Pennsylvania	3518	165
Pennsylvania	4386	200
Pennsylvania	5387	203
Pennsylvania	5523	173
Rhode Island	406	185
Texas	86	180
Texas	343	184
Texas	3299	196
Texas	3550	197
Texas	5102	171
Texas	6643	209
Texas	6707	210
Utah	3068	164
Vermont	2173	161
Virginia	1810	160
Virginia	6435	209
Wisconsin	800	157
Wisconsin	3228	196
Wisconsin	3353	165
Wisconsin	5666	204
Wisconsin	6749	178
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Wyoming	6687	210

Use of Computers for Instruction
Fiscal Year 1966

SHORELINE INSTRUCTIONAL MULTI-MEDIA CENTER.

Board of Education of Old Saybrook, Old Saybrook

OE No. 66-136

Planning Project

Terminated

Amount sought - \$80,641

An instructional materials and cultural center is to be planned to provide such services as educational television, computer-assisted instruction, and microfilming. Planning is to include: cooperative efforts of autonomous school systems; preparation of small rural suburban communities for the influx of relocated culturally deprived groups; development of an effective survey tool for schools of 3,000 or fewer pupils; cooperation between public and nonpublic schools; evaluation and use of modern technical aids by the schools of small communities; opportunities for students to master technical office and production machines not available in the schools; development of the multi-media center to serve a large area; and use of educational research results in classroom practice. Number of persons to be served: 84,700.

Further information: Lawrence Reney, Board of Education of Old Saybrook, 12-24 Sheffield Street, Old Saybrook, Connecticut 06475.
(203) 388-3409

A COOPERATIVE PROJECT AMONG TEACHERS, SCHOOLS, AND INDUSTRY FOR
CONTINUED DEVELOPMENT OF MEANS TO IMPROVE LEARNING.

Oak Park and River Forest High School, District No. 200, Cook County,
Illinois, Oak Park

OE No. 66-189

Planning Project

Terminated

Amount sought - \$46,000

A pilot program made possible by a grant from the Knapp Foundation will be continued. It leads to establishing an Instructional Resource Center in a library that stores much information electronically and retrieves it instantly for the benefit of individuals and small groups at a cost permitting schools to develop centers of their own. In a small, electronically equipped carrel, the student will dial a coded number. The material he seeks will appear on a screen as a still picture of pages from books, photographs, maps, charts; tables, graphs, or documents, or films or videotapes with sound, or will be heard as produced by tapes with sound only. The equipment needed to make such a center a reality already exists but never has been brought together to serve education. This project will make possible the crucial step of preparing teachers in the skills needed to make their own audio-visual materials for storage in the center. Master teachers working in the pilot program will be given released time and provided with an experimental workshop where they can develop, create, and preview materials under the guidance of technicians and consultants. The number of persons to be served is estimated at 20,000.

Further information: Lura E. Crawford, Head Librarian, Oak Park-River Forest High School, East Avenue and Ontario Street, Oak Park, Illinois.

COORDINATED DATA PROCESSING SERVICE AND FACILITY.

Suburban School Service Joint Board, Edina

OE No. 66-239

Planning Project

Terminated

Amount sought - \$56,225

The facility to be planned would coordinate the development of data processing services to the schools; provide a system for information storage and retrieval; offer inservice training for school personnel; and undertake the research and development of computer applications in educational management and instruction. Planners are to consider developing an exemplary coordinated total educational information system to support instructional programs in the schools; using supportive data services to improve guidance and counseling programs; and making available equipment and personnel for the development of pilot programs in the instructional use of computers. To be developed in coordination with the State Department of Education, the center may become the first stage in the establishment of a statewide educational information system. Number of persons to be served: 325,000 pupils and 16,000 professional staff members.

Further information: Willis F. Shaw, Treasurer, 5701 Normandale Road, Edina, Minnesota 55424. (612) 927-9721

PLANNING FOR INNOVATION.

School District of Philadelphia, Philadelphia

OE No. 66-262

Planning Project

Terminated

Amount sought - \$500,000

Focusing initially on the education of disadvantaged and underdeveloped youngsters, a long-range Plan of Innovation will be developed for continued educational program improvement within the District. The schools' linkages to family, neighborhood, and community institutions will be examined and strengthened, taking into account the "community school" concept of neighborhood involvement, full use of community resources particularly in remedial-therapeutic programs, and cooperative efforts with nonpublic school systems. Program, staff, and organization within the schools will be reviewed and extended, including individualized education through nongrading and the "magnet school" concept in which differentiated, integrated education is available on the basis of need and interest; organizing with institutions of higher learning for continuing education programs; possible roles for teacher's aides, other nonprofessional personnel and volunteers; testing new educational technology such as the computer as an instructional vehicle; and a 7-4-4 program of school organization. The plan will incorporate several ESEA titles-- a mass effect under Title I, demonstrations of innovative approaches under Title III, and research support under Title IV. The population of the City of Philadelphia is 2,044,000 persons.

Further information: Dr. C. Taylor Whittier, Superintendent of Schools, Parkway at 21st Street, Philadelphia, Pennsylvania 19103. (215) LO 4-3400 Ext. 222

A COMPUTERIZED APPROACH TO THE INDIVIDUALIZING OF INSTRUCTIONAL EXPERIENCES.

Boulder Valley School District No. Re-2, Boulder

OE No. 66-399 Planning Project

Terminated

Amount sought - \$26,920, fiscal year '67

Part II. A continuation of Part I above, the program is to consist of completion of preplanning, collection of input data on the three groups of students, coding of information for punch cards, preparation of a program for computer analysis, continuation of teacher workshops, consultation with specialists, a trial run of the system, and completion of planning in order to begin operation in the fall of 1967.

Further information: Richard M. Fawley, Director; Curriculum Research and Statistical Analysis; P.O. Box 186, Boulder, Colorado. (303) 442-6931 Ext. 45

A COMPUTERIZED APPROACH TO THE INDIVIDUALIZING OF INSTRUCTIONAL EXPERIENCES.

Boulder Valley School District No. Re-2, Boulder

OE No. 66-481 Planning Project

Terminated

Amount sought - \$20,910

Part I. Based on information about individual characteristics of the students, the use of computer facilities is to be planned to help teachers design more effective instructional experiences for three broad groups of students--the academically able, the middle range, and potential dropouts--in Kindergarten through Grade 12. The kinds of input data such as educational objectives, student characteristics, and instructional designs are to be determined. Inservice workshops are to be set up for teachers, and a complete design for evaluating the program is to be developed. Estimated number of persons to be served: 1,300 students.

Further information: Richard M. Fawley, Director; Curriculum Research and Statistical Analysis; P.O. Box 186, Boulder, Colorado. (303) 442-6931 Ext. 45

DATA PROCESSING INSTRUCTION CENTER.

School District No. 5, City of Franklin, Franklin

OE No. 66-800 Planning Project

Terminated

Amount sought - \$11,100

A center will be planned in a comprehensive high school to teach automatic data processing and its application to mathematics, science, and business. Emphasis will be on student use, with the possibility of future utilization on a districtwide basis.

Further information: H. E. Guzniczak, Superintendent, P.O. Box 245, Franklin, Wisconsin 53131. (414) 425-2554

REGIONAL INSTRUCTIONAL COMPUTER CENTER.

Hamden, Connecticut, Board of Education, Hamden

OE No. 66-954 Planning Project

Terminated

Amount sought - \$33,000

The fiscal, administrative, and training requirements of a data center for instruction and guidance will be explored by nine school districts.

Further information: Richard Bigelow, Mathematics Instructor, Hamden High School, Hamden, Connecticut. (203) 248-2134

A PROPOSAL FOR PLANNING A METROPOLITAN EFFORT TOWARD REGIONAL OPPORTUNITY.

The Wethersfield Board of Education, Wethersfield

OE No. 66-995 Planning Project

Terminated

Amount sought - \$122,300

An Advisory Committee and staff will examine the educational needs of Hartford County and will establish priorities for planning a regional operational project to include data processing and computer programs.

Further information: Dr. John E. Deady, Superintendent of Schools, 222 Main Street, Wethersfield, Connecticut 06109. (203) 529-8611

DATA RETRIEVAL SYSTEM.

Beverly Hills Unified School District, Beverly Hills

OE No. 66-1150 Planning Project

Terminated

Amount sought - \$92,800

An automatic information retrieval system for retrieving both audio and visual information will be tested in the instructional program of four elementary schools as a pilot project.

Further information: Dan M. Gibson, Director of Instructional Materials, Beverly Hills Unified School District, 255 So. Lasky Drive, Beverly Hills, California 90212. (213) 278-1480

PLANNING A REGIONAL PROGRAM OF COMPUTER INSTRUCTION FOR HIGH SCHOOL STUDENTS.

Marion County Intermediate Education District, Salem

OE No. 66-1191 Planning Project

Terminated

Amount sought - \$26,124

This planning involves development of computer instruction to augment the current programs in several curricular areas by relating them to computer technology. Provision is made for instruction in the nature, role, and use of computers as related to these subjects.

Further information: Merlin L. Morey, Superintendent, Marion County Intermediate Education District, County Courthouse, Salem, Oregon 97301. (503) 364-4401 Ext. 81

UTILIZATION OF COMPUTER ASSISTED INSTRUCTION TO IMPROVE STUDENT ACHIEVEMENT AND FACULTY INSTRUCTION IN SECONDARY SCHOOL MATHEMATICS AND SCIENCE.

Altoona City School District, Altoona

OE No. 66-1324 Operational Project

Amount sought - \$85,100

The capacity of an existing computer installation will be increased to allow additional terminals for a computer assisted instructional program in mathematics and science.

Further information: Dr. Thomas R. Heslep, Superintendent, Altoona City Schools, 1415 Seventh Avenue, Altoona, Pennsylvania 16603. (814) 944-8101

REGIONAL EDUCATIONAL DATA PROCESSING AND INFORMATION SYSTEM.

Board of Cooperative Educational Services, First Supervisory District,
Erie County, Buffalo

OE No. 66-1458 Planning Project Terminated

Amount sought - \$14,200

An educational information system utilizing computer technology will be planned to include an area-wide computer complex, individual computer based instruction, and a computer available to all area schools for instructional purposes.

Further information: Delbert Repp, Director of Educational Data Processing, Board of Cooperative Educational Services, 99 Aero Drive, Buffalo, New York 14225. (716) 634-3333

ENVIRONMENTAL LEARNING CENTER.

Burnt-Hills-Balston Lake Central Schools, Scotia

OE No. 66-1480 Operational Project

Amount sought - \$14,000

Multimedia electronic carrels will be installed to provide students increased opportunities for independent study through an instamatic dial system, computer-assisted instruction, and programmed units.

Further information: Mrs. Mary Joan Egan, Library Department Chairman, 491 Saratoga Road, Scotia, New York 12302. (518) 399-1175

THE ESTABLISHMENT AND MAINTENANCE OF A CENTER FOR THE DEMONSTRATION OF COMPUTER-AIDED INSTRUCTIONAL SYSTEMS AND OTHER COMPLEX EDUCATIONAL MEDIA.

Board of Cooperative Educational Services, First Supervisory District,
Westchester County, Bedford Hills

OE No. 66-1494 Operational Project

Amount sought - \$66,300

A center will demonstrate ways to individualize instruction through the use of media such as the dial-selection system and video tape recorders, and with the aid of computers.

Further information: Walter Goodman, Title III Project Director, BOCES Center for Educational Services, 845 Fox Meadow Road, Yorktown Heights, New York. (914) 245-7031

AN AREA SUMMER HUMANITIES PROGRAM ON NON-WESTERN CULTURES FOR NORTHERN WESTCHESTER COUNTY, NEW YORK.

Board of Cooperative Educational Services, First Supervisory District,
Westchester County, Bedford Hills

OE No. 66-1528 Operational Project Terminated

Amount sought - \$23,700

A humanities program, including computer-assisted instruction, will enroll some 200 high school students in 4-week summer institutes on Africa and Japan.

Further information: Charles Sansone, Fox Lane High School, Mount Kisco, New York. (914) 666-6731

MATHEMATICS COMPUTER CENTER.

Clark County School District, Las Vegas

OE No. 66-1535 Operational Project

Amount sought - \$62,965

Students of mathematics in seven secondary schools of Clark County will have access to a computer either at the Center or through teletype lines. Inservice courses will be organized to help teachers utilize the Center in their courses.

Further information: William Merz, Special Assistant for Research and Project Design, P. O. Box 551, Las Vegas, Nevada 89100. (702) 736-5236

VISUAL RETRIEVAL READING CENTER.

Linda Elementary School District, Marysville

OE No. 66-1645 Planning Project

Terminated

Amount sought - \$20,000

A reading center will be established to serve students, train teachers, and offer social, psychological, and health services utilizing a dial telephone system to retrieve information stored on tapes in areas such as history, music, linguistics, and reading.

Further information: Donald K. Morales, Assistant Superintendent, Yuba County Schools Office, Yuba County Courthouse, Marysville, California 95901. (916) 743-1511

SUPPLEMENTARY MATHEMATICS AND SCIENCE CENTER.

School Board of the City of Richmond, Richmond

OE No. 66-1810 Operational Project

Amount sought - \$347,709

A center will be established to offer presently unavailable opportunities in mathematics and science to advanced students and the whole community; to include computer instruction, individual science experimentation, access to a science and mathematics museum, and instruction in astronomy and the earth sciences.

Further information: Dr. H. S. Willett, Superintendent, Richmond Public Schools, Richmond, Virginia 23219. (703) 649-5301

COMPUTER AND MATH PROGRAMING.

School City of Gary, Gary

OE No. 66-1820 Operational Project

Amount sought - \$21,240

A course in computer mathematics and programing will be offered to secondary students through the use of facilities at the Illinois Institute of Technology.

Further information: Lee R. Gilbert, Superintendent of Schools, 620 East 10th Place, Gary, Indiana 46402. (219) 885-6193

USE OF COMPUTER ASSISTED INSTRUCTION FOR MATHEMATICS INSERVICE
EDUCATION OF FLEMENTARY SCHOOL TEACHERS.

Williamsport Area School District, Williamsport

OE No. 66-1970 Operational Project Terminated

Amount sought - \$63,341

Inservice training in modern mathematics for elementary school teachers will be conducted using a newly developed program with a computer.

Further information: Samuel M. Long, Assistant Superintendent, Williamsport Area School District, 845 Park Avenue, Williamsport, Pennsylvania 17701. (717) 787-3976

AREA XI REGIONAL PROJECT "ACCESS".

Polk County Board of Education, Des Moines

OE No. 66-2000 Operational Project

Amount sought - \$199,990

Through tele-processing terminals, teachers, pupils, and administrators will be able to use a regional computer; the computer will serve as an instructional tool in all curriculum areas, and as an administrative tool for a local information system.

Further information: Ralph C. Morris, Superintendent, Polk County Public Schools, 216 S. W. First Street, Des Moines, Iowa 50309. (515) 284-6171

TEACHING MATHEMATICS THROUGH THE USE OF A TIME SHARED COMPUTER.

Champlain Valley Union High District #15, Hinesburg

OE No. 66-2173 Planning Project Terminated

Amount sought - \$24,502

Plans will be made to develop a program of computer-assisted instruction for academic students at the eleventh and twelfth grade levels and for non-academic secondary students of mathematics; a pilot project will be established and comparisons made with classes taught by standard methods.

Further information: Arthur H. Cheney, Superintendent of Schools, P. O. Box 127, Shelburne, Vermont 05461. (802) 862-4690

A COMPUTER-ASSISTED INSTRUCTION LABORATORY IN MATHEMATICS AND SCIENCE.

Board of Education of Kansas City, Missouri, Kansas City

OE No. 67-2293 Planning Project Terminated

Amount sought - \$39,800

Plans will be made for the utilization of a computer-assisted instruction laboratory in the junior high school program. A science and mathematics curriculum will be designed to make affective use of such a laboratory.

Further information: James A. Hazlett, Superintendent, School District of Kansas City, 1211 McGee, Kansas City, Missouri 64106. (816) 221-7565

AUTOMATED DATA ANALYSIS FOR INSTRUCTION AND RESEARCH.

Hayward Unified School District, Hayward

OE No. 66-2631 Planning Project Terminated

Amount sought - \$21,685

Computer programing and problem solving techniques will be incorporated in mathematics, social and physical science, and business courses at the high school level.

Further information: Scott D. Thomson, Principal, Cubberly High School, Palo Alto Unified School District, 25 Churchill Avenue, Palo Alto, California 94544. (415) 327-7100 Ext. 5558

COMPUTER USES IN EDUCATION.

Santa Barbara High School District, Santa Barbara

OE No, 66-2710 Operational Project

Terminated

Amount sought - \$81,292

The facilities of a community computer center will be utilized to measure the effectiveness of computer assistance in high school mathematics and physics; an experimental group taught with computer assistance in each subject will be compared with a control group taught in the traditional manner by the same teachers.

Further information: Norman B. Scharer, Superintendent of Schools,
1235 Chapala Street, Santa Barbara, California 93104. (805) 965-7021

USE OF COMPUTERS FOR INSTRUCTION
FISCAL YEAR 1967

COMPUTER BASED INSTRUCTION.

Board of Cooperative Educational Services, First Supervisory District,
Erie County, Buffalo, New York

OE No. 67-2947 Operational Project

Amount sought - \$239,055

Procedures developed under Title III Planning Grant #OEG-1-6-001458-1055 will be implemented for the utilization of computer-based resource units, computer-assisted instruction, in-service training for administrators and faculty, and general education units aimed at the exposure of pupils to a basic orientation in computers and data processing. Implementation will involve the employment and training of personnel, purchase of required materials, and purchase of computer-time necessary to permit curriculum development which will facilitate and improve instruction.

Further information: Ernest H. Hoeldtke, Supt., Board of Cooperative Educational Services, 99 Aero Dr., Buffalo, N. Y. (716) 634-6800

DYNAMIC MULTIPHASE AREA-WIDE DATA PROCESSING CURRICULUM.

Traverse Bay Intermediate School District, Traverse City

OE No. 66-2524 Planning Project Terminated

Amount sought - \$26,744

A centrally coordinated multiphase data processing curriculum which will raise the occupational capabilities of many of the area high school and community college students will be planned and developed.

Further information: Byron Anger, Traverse Bay Area Intermediate District Superintendent, Court House, Traverse City, Michigan 49684. (616) 947-6417

REGIONAL INSTRUCTIONAL COMPUTER CENTER.

Hamden, Connecticut, Board of Education, Hamden

OE No. 66-2963 Operational Project

Amount sought - \$172,997

A suburban educational computer center, designed on the basis of a previous Title III Planning Grant, will be established to serve 12 participating school systems. Three phases of the operational program will consist of (1) development of curriculum and teacher training programs (2) teacher training and pilot use of the facilities (3) installation of remote student councils in participating schools and the implementation of full administrative services.

Further information: David Wyllie, Superintendent of Schools, 75 Washington Ave., Hamden, Connecticut. (203) 248-4497

ESTABLISHING EXEMPLARY CENTERS FOR CONTINUOUS PROGRESS EDUCATION.

Board of Education of Salt Lake City, Salt Lake City, Utah

OE No. 67-3068 Operational Project

Amount sought - \$420,475

One or more exemplary elementary schools will be established in each of five school districts as models for continuous progress education wherein each student progresses in accordance with his individual growth timetable and with programs designed to best develop his abilities. The schools will emphasize curriculum and school reorganization, individualized instruction, new instructional media, rapid information retrieval systems, new procedures for reporting pupil progress, and use of teacher interns from local universities.

Further information: Dr. Arthur C. Wiscombe, Deputy Supt., Board of Education of Salt Lake City, 440 East 1st So., Salt Lake City, Utah. (801) 322-1471

A COMPUTERIZED APPROACH TO THE INDIVIDUALIZING OF INSTRUCTIONAL EXPERIENCES.

Boulder Valley School District Re 2, Boulder

OE No. 67-3253 Operational Project

Amount sought - \$67,138

Computer techniques will be used to assist classroom teachers in making decisions about instructional programs for individual students. Teachers will have easy access to computer-stored information about individual student characteristics and curriculum alternatives. The program will include inservice training, a restructured curriculum, and the use of new instructional materials.

Further information: Richard M. Fawley, Director of Curriculum, Research & Statistical Analysis, 1440 Walnut St., Boulder, Colorado 80302. (303) 442-6931

AIR AGE VOCATIONAL PROGRAM.

Adams-Arapahoe School District 28-J, Aurora

OE No. 67-3279 Planning Project

Terminated

Amount sought - \$27,366

A secondary school vocational curriculum will be planned to offer students training in airframe and power-plant mechanics, airplane piloting, aircraft ground duties, helicopter piloting, and helicopter mechanics. The program also will provide vocational orientation to electronics, data processing, meteorology, reservation making and ticket selling, operations, and communications.

Further information: William C. Hinkley, Superintendent, 1085 Peoria St., Aurora, Colorado 80010. (303) 364-3331

DATA PROCESSING INSTRUCTION CENTER.

School District #5, Franklin, Wisconsin

OE No. 67-3353 Operational Project

Amount sought - \$203,328

A data processing instruction center will be developed for a three-county area for teaching data processing to students of both public and non-public schools. Specially trained instructors will work with each local staff to teach the basic philosophies and concepts of data processing, develop curricula, and utilize a team teaching approach at participating schools.

Further information: H. E. Guzniczak, Superintendent of Schools, 7380 South North Cape Road (P.O. Box 245), Franklin, Wisconsin 53131. (414) 425-2554

PLANNING AND PILOT IMPLEMENTATION OF A COMPUTER BASED INSTRUCTIONAL SYSTEM.

Board of Education of the City of New York, Brooklyn

OE No. 67-3362 Operational Project

Amount sought - \$689,898

A computer based instructional system will be planned and operated to serve elementary school groups, remedial high school, and adult groups. The individual drill and practice curriculum developed at Stanford will be used for mathematics, spelling and reading in five counties of a depressed urban area. Two hundred classrooms in sixteen schools will be equipped with student terminals. Menial chores will be reduced and personalized instruction will be given as needed.

Further information: Dr. Bernard E. Donovan, Superintendent, 110 Livingston Street, Brooklyn, New York 11201. (212) 596-6161

USE OF COMPUTER ASSISTED INSTRUCTION TO TEACH SPELLING TO SIXTH GRADERS.

State College Area School District, State College

OE No. 67-3518 Operational Project Terminated

Amount sought - \$75,983

Two spelling programs, each capable of being presented via computer assisted instruction or regular classroom channels, will be prepared and administered to sixth-grade classes to determine the relative efficiencies of the approaches and the media used.

Further information: George N. Demshock, Assistant to the Superintendent for Research and Development, 131 W. Nittany Ave., State College, Pennsylvania 16801.

ESTABLISHING A COMPREHENSIVE, PREVENTIVE LEARNING DISABILITIES
AND MENTAL HEALTH PROGRAM.

Alfred I. DuPont School District, Wilmington

OE No. 67-3567 Operational Project

Amount sought - \$143,141

A program to eliminate school failure will be established by identifying special needs of students and providing consultation and supervision, with a data processing system for research and control. A flexible curriculum precisely geared to the individual's stage of development will make education in this city school district more responsive to the individual child.

Further information: Carroll W. Biggs, Chief School Officer,
Concord Pike at Mt. Lebanon Rd., Wilmington, Delaware 19803.
475 1500

LEA COUNTY DATA PROCESSING CENTER.

Hobbs Municipal Schools, Hobbs

OE No. 67-3592 Operational Project

Amount sought - \$71,363

A data-processing center having facilities for teaching computer application to mathematics, science, and business will be established. Specific occupational instruction in data processing, programming languages and electronic storage of data will be offered. The center will also handle the school administrative work of payroll, attendance, grade cards, health records, and test scoring. It will serve five school districts.

Further information: R. N. Tydings, Superintendent of Schools,
Box 1040, Hobbs, New Mexico. (505) 393-9183

PLANNING FOR COMPUTER INSTRUCTION.

The Westlake Board of Education, Westlake

OE No. 67-3675 Planning Project

Terminated

Amount sought - \$17,430

A data processing center to give instruction on a computer to pupils in grades 8-12, gifted elementary pupils, and adults will be planned as part of the curriculum. Inservice training for teachers will also be a feature. The center will be used in business, mathematics, and science courses to emphasize the importance of computers today.

Further information: Franklin B. Walter, Superintendent, Westlake
City School District, 2282 Dover Center Road, Westlake, Ohio 44091.
(216) 871-7300

LABORATORY PROGRAM FOR COMPUTER ASSISTED LEARNING.

School Department of Westwood, Westwood
OE No. 67-3688 Operational Project

Amount sought - \$112,762

A mathematics classroom/laboratory based on the use of a time-shared digital computer as a teaching aid will be designed to improve mathematics instruction in the secondary school. This study will apply advanced computer technology plus classroom methods and materials (from the previous OE grant) to develop individualized instruction for use in both remedial and enrichment programs, and will provide for appropriate inservice teacher training.

Further information: Erwin A. Gallagher, Superintendent of Schools, High Street, Westwood, Massachusetts 02090. (617) 326-7500

AIMS ACCESS TO INSTRUCTIONAL MATERIALS AND SERVICES.

School District of the City of Omaha, Omaha
OE No. 67-3791 Operational Project

Amount sought - \$227,280

A dial access retrieval system, linked to existing computer facilities, and a closed circuit television station will be planned and operated as a pilot program with one school. The program will include inservice training for teachers in planning, establishing, and operating the facility.

Further information: Owen A. Knutzen, Acting Superintendent, School District of the City of Omaha, 3902 Davenport Street, Omaha, Nebraska 68131. (402) 556-6600

PROBLEM SOLVING - COMPUTER STYLE.

Orleans Parish School Board, New Orleans
OE No. 67-3834 Operational Project

Amount sought - \$87,896

A computer center will be established to enrich student learning in mathematics, chemistry, and physics. The center will also facilitate development and evaluation of new teaching media and methods in home economics, music, and the social sciences for the school district.

Further information: Carl J. Dolce, Superintendent of Schools, 703 Carondelet Street, New Orleans, Louisiana 70130. (504) 524-8592 Ext. 337

AIMS - ACCESS TO INSTRUCTIONAL MATERIALS AND SERVICES.

School District of the City of Omaha

OE No. 67-3971 Operational Project

Amount sought - \$89,999

A dial access retrieval system, linked to existing computer facilities, will be planned and operated on a pilot basis in one school. Inservice training will be provided for teachers who will participate in planning, establishing, and operating the facility. Counties served: Douglas.

Further information: Owen A. Knutzen, Acting Superintendent, School District of the City of Omaha, 3902 Davenport Street, Omaha, Nebraska 68131. (402) 556-6600

TOTAL INFORMATION FOR EDUCATIONAL SYSTEMS.

Suburban School Services Joint Board, St. Louis Park

OE No. 67-3987 Operational Project

Amount sought - \$449,828

Program will coordinate the development of data processing services in school systems and provide for the automatic generation of required educational data to the State Department of Education. The EDF facility will serve as a center for research and development of computer applications in educational management and instruction, as well as provide for a continuous program of inservice training for school personnel.

Further information: Harold Enestredt, Superintendent, 6425 W. 33rd Street, St. Louis Park, Minnesota 55426. (612) 929-2651

THE DEVELOPMENT OF A TOTAL INFORMATION CENTER WITH AUXILIARY SERVICES TO INDEPENDENT SCHOOL DISTRICTS.

Franklin County Board of Education, Columbus

OE No. 67-4053 Operational Project

Amount sought - \$212,990

A computer center, serving 16 school districts in the county, will be established to relieve teachers of many clerical and administrative duties and to provide administrators with the information necessary for the effective operation of schools. Student records, financial records, and inventory records will be stored and will be available to the districts via terminal lines. The possibilities for a library records system and for computer-assisted instruction will be studied. Counties served: Franklin.

Further information: Thomas J. Quick, Superintendent, Franklin County Schools, 46 E. Fulton Street, Columbus, Ohio 43215. (614) 221-1211 Ext. 415

COMPUTER-BASED TEST DEVELOPMENT CENTER.

Multnomah County Intermediate Educational District, Portland

OE No. 67-4213 Operational Project

Amount sought - \$68,483

A test development service will be operated in 17 school districts to provide teachers, administrators, and special project personnel with well-validated achievement tests designed for specific purposes and specific learner groups, e.g., high school science tests with norms appropriate to the school system. This service will be part of an evolving system which will lead to computer-assisted instruction.

Further information: Errol C. Rees Superintendent, P. O. Box 9172, Portland, Oregon 97216. (503) 255-1841

COMPUTER INSTRUCTION NETWORK.

Marion County I.E.D., Salem

OE No. 67-4286 Operational Project

Amount sought - \$177,077

Every high school student in six districts will be instructed in the use of representative types of computer equipment. The program will provide instruction, understanding, and training in basic computer concepts, effects of automation on society, and problem solving. Inservice training will be given for the study of the functioning of the computer.

Further information: Mr. Merlin L. Morey, County School Superintendent, 681 Center Street, N.E., Salem, Oregon 97301. (503) 585-6210

INDICOM - "INDIVIDUAL COMMUNICATIONS SYSTEM"

Saginaw Township Community Schools

OE No. 67-4301 Operational Project

Amount sought - \$576,208

Computer assisted instruction will be implemented in the teaching of mathematics and spelling in grades 3 - 6 in one school district. The programs to be used will be transmitted from a central computer to classrooms in several schools, and will utilize diagnostic, branching, and sequencing at five levels of difficulty.

Further information: A. Mills Wilber, Superintendent of Schools, 5685 Shattuck Road, Saginaw, Michigan 48623. (517) 792-8771

MULTI-MEDIA COURSE MODEL APPLIED TO SECONDARY EDUCATION.

Board of Education of Anne Arundel County, Annapolis

OE No. 67-4342 Operational Project

Amount sought - \$427,303

A model secondary level curriculum, emphasizing a multi-media, computer-controlled approach, will be designed for schools in the district. The model will be tested and used as a basis for complete revision of the secondary school curriculum. Objectives of the program are to use modern educational technology and results of learning-process research in designing the model. Counties served: Anne Arundel

Further information: David S. Jenkins, Superintendent, Board of Education, Anne Arundel County, Box 951, Annapolis, Maryland 21404. (301) 268-3345

DOD DEPENDENTS SCHOOLS COMPUTER ASSISTED INSTRUCTION.

PACAF Headquarters (DPD) Dependents School, Honolulu

OE No. 67-4462 Planning Project

Terminated

Amount sought - \$85,150

Operational CAI (Computer Assisted Instruction) designs will be developed for use throughout the school system, through a program of school-needs and available equipment study, experimental design, and operational design. This will result in the founding of a structured CAI science, documented by reports and how-to-do-it manuals for use by all school systems in the United States.

Further information: Richard Meyering, Acting Superintendent
Hickam Field APO 96553SF, Honolulu.

COMPUTER ASSISTED INSTRUCTION IN MATHEMATICS.

McComb Municipal Separate School District, McComb

OE No. 67-4721 Operational Project

Amount sought - \$333,823

An experimental mathematics program, using computer assisted instruction, will be tested in school districts where such a program has not previously been used in public schools. Attempts will be made to determine the adaptability of the program to various types of student populations and to determine methods of gaining acceptance from the faculty. Counties served: South Pike, Franklin.

Further information: J. D. Prince, Superintendent, McComb
Municipal Separate School District, 695 Minnesota Avenue, McComb,
Mississippi 39648. (601) 684-4661

USE OF COMPUTERS FOR INSTRUCTION
FISCAL YEAR 1968

STANFORD-RAVENSWOOD COMPUTER-ASSISTED INSTRUCTION PROGRAM.

Ravenswood City School District, East Palo Alto

OE No. 68-5083 Operational Project

Amount sought - \$500,100

The computer-assisted instruction program established for an elementary school will be revised and expanded for adaptation to other school systems. Lesson material will be evaluated, pre-tests prepared, and individualized instruction programmed for a computerized training program in elementary school mathematics and language art.

Counties served: San Mateo.

Further information: Roderick Moore, Superintendent of Schools,
2160 Euclid Avenue, East Palo Alto, California 94303. (415) 324-1621

INDIVIDUALIZED INSTRUCTION THROUGH A LEARNER-CENTERED MULTI-MEDIA
APPROACH.

Austin Independent School District, Austin

OE No. 68-5102 Operational Project

Amount sought - \$139,865

Four multi-media centers will be established to provide a systems approach to developing individualized instruction for public elementary school children. Audiotapes, films with synchronized tapes, microfilm readers, and audiovisual stations for computer-assisted instruction and educational television will be utilized. Counties served: Bastrop, Bexar, Blanco, Caldwell, Comal, Gonzales, Guadalupe, Hays, Kendall, Travis.

Further information: Arby B. Carruth, Superintendent, 6100 North
Guadalupe Street, Austin, Texas 78752. (512) 452-9331

A COMPUTER-ASSISTED INSTRUCTION LABORATORY IN MATHEMATICS AND
SCIENCE.

School District of Kansas City, Kansas City

OE No. 68-5103 Operational Project

Amount sought - \$309,037

A computer-assisted instruction (CAI) laboratory will be established to provide facilities for an eighth grade math-science course, stressing math as the language of science. Computer equipment and individualized instruction will be utilized to stimulate the student's interest and alter his attitudes toward math and science, as well as demonstrate the relationship of one to the other. Computer-oriented specialists will provide inservice training and consulting services to the staff. Counties served: Jackson.

Further information: James A. Hazlett, Superintendent of Schools,
1211 McGee, Kansas City, Missouri 64106. (816) 221-7565 Ext. 222

PROJECT TO DEVELOP EFFECTIVE USE OF COMPUTER-ASSISTED INSTRUCTION
IN A LARGE PUBLIC SCHOOL SYSTEM.

Board of Education of Montgomery County, Rockville

OE No. 68-5147 Operational Project

Amount sought - \$166,353

A program will be established in the elementary and junior and senior high schools to study the effectiveness of computer-assisted instruction and orient the teaching staff to its operation. Available software will be used in "real situations" and necessary adaptations will be made in existing software to meet needs of local curriculums. Use of CAI in diagnosing educational needs, testing, and program evaluation will be explored. Counties served: Montgomery

Further information: Homer O. Elseroad, Superintendent of Schools,
850 North Washington Street, Rockville, Maryland 20850. (301)
762-5000 Ext. 333

EDTECH (EDUCATIONAL DEVELOPMENT THROUGH TECHNOLOGY).

Dover Special School District, Dover

OE No. 68-5153 Operational Project

Amount sought - \$234,349

Education will be improved through utilization of a Statewide network of educational technology. Computer programs will provide administrative and instructional services; teachers and pupils will be trained to use the computer as a mathematical training tool; cooperative training for school agencies and teachers will be established; and the use of computers as aids for counseling and guidance, games and simulations, testing and analysis, and curriculum assessment will be evaluated. Counties served: Kent, New Castle, Sussex.

Further information: Dustin W. Wilson, Jr., Superintendent, 945
Forrest Street, Dover, Delaware 19901. (302) 734-4104

NORTHWEST LOUISIANA SUPPLEMENTARY EDUCATION CENTER AND SERVICES.

Bossier Parish School Board, Benton

OE No. 68-5195 Operational Project

Amount sought - \$509,265

A regional educational center will provide curriculum research and development programs; educational technology research and services, including educational TV and computer-assisted instruction; pupil personnel services, including special programs for gifted children; and related inservice training for teachers. The center will serve students of all levels, including college students. The services of local audiovisual materials centers will be integrated and coordinated. Counties served: Bienville, Bossier, Caddo, Claiborne, DeSoto, Jackson, Lincoln, Natchitoches, Red River, Sabine, Webster, Winn.

Further information: Emmett Cope, Superintendent, Bossier Parish
School Board, Benton, Louisiana 71006. (318) 965-2281

MONMOUTH EDUCATION COUNCIL.

Long Branch Board of Education, Long Branch

OE No. 68-5336 Operational Project

Amount sought - \$94,196

An educational improvement center will be established to provide the staffs of 58 public and nonpublic schools with one year of orientation and inservice training in the planning and design of educational systems, systems analysis, communication interaction techniques, and technological advancements. A professional staff of specialists in computer systems design and application will provide programs in special education, adult education, instructional media, business operations, and curriculum research and development. Counties served: Monmouth.

Further information: Herbert A. Korey, Executive Director of the Monmouth Educational Council, Westwood Avenue, Long Branch, New Jersey 07740. (201) 229-5500

VEHICLE FOR CHANGE.

Traverse Bay Area Intermediate School District, Traverse City

OE No. 68-5353 Operational Project

Amount sought - \$198,428

An occupational training program in data processing will be established for all area public and nonpublic high school students. The program will provide traditional training for centrally located students and a modular, team teaching, telelecture mode of teaching for students in outlying schools. A data processing center will be established and equipped. Counties served: Antrim, Benzie, Grand Traverse, Kalkaska, Leelanau.

Further information: William L. Gelston, Superintendent, Traverse Bay Area ISD, 1120 East Front Street, Traverse City, Michigan 49684. (616) 946-8920

A COMMONWEALTH CONSORTIUM TO DEVELOP, IMPLEMENT, AND EVALUATE A PILOT PROGRAM OF COMPUTER-ASSISTED INSTRUCTION FOR URBAN HIGH SCHOOLS.

School District of Pittsburgh, Pittsburgh

OE No. 68-5523 Operational Project

Amount sought - \$363,099

Computer-assisted, individualized instruction programs in high school general mathematics, algebra, and chemistry will be developed by two major metropolitan school districts in cooperation with the State university and State Department of Education. Educators and computer personnel will develop curriculums and provide instructor training for a pilot program. Counties served: Allegheny, Philadelphia

Further information: Bernard J. McCormick, Deputy Superintendent, Ballefield and Forbes Avenues, Pittsburgh, Pennsylvania 15213. (412) 682-1700

INDIVIDUAL COMPUTER-AIDED INSTRUCTION.

Paintsville Board of Education, Paintsville

OE No. 68-5648 Operational Project

Amount sought - \$274,195

Arithmetic will be taught by computer, using a teletype machine familiar to students and teachers, at terminals in Breckinridge and Elliottsville. Each student will work at his pace according to his ability, enabling teachers to detect areas of weakness and provide needed assistance. Sixty teachers will attend a five-day workshop during the summer for training in computer-aided instruction. Counties served: Elliott, Johnson, Magoffin, Menifee, Morgan, Pike, Rowan.

Further information: Oren Teater, Superintendent of Schools, Paintsville, Kentucky 41240. (606) 789-3459

COMPUTER USES IN EDUCATION.

Santa Barbara High School District, Santa Barbara

OE No. 68-5752 Operational Project

Amount sought - \$22,300

The facilities of a community computer center will be utilized to measure the effectiveness of computer-assisted instruction in high school algebra and physics. High school algebra and physics instructors will work with professional programmers to develop units of instruction. An inservice component will provide training for teachers selected to use the program. Counties served: Santa Barbara.

Further information: Norman B. Scharer, Superintendent of Schools, 720 Santa Barbara Street, Santa Barbara, California 93101. (805) 963-4331 Ext. 234

INNOVATIVE IMPLEMENTATION OF COMPUTER-AIDED INSTRUCTION.

School Committee, City of Boston, Boston

OE No. 68-5762 Operational Project

Amount sought - \$77,000

Computer techniques will be used to develop and implement diagnostic testing and instructional methods and materials for grades 1-7 on a pilot basis. Individualized instruction in reading, spelling, and auditory discrimination training will be emphasized. The program will utilize the technical resources and personnel of the Harvard Computer Center. Counties served: Suffolk.

Further information: William H. Ohrenberger, Superintendent of Boston Public Schools, 15 Beacon Street, Boston, Massachusetts 02108. (617) 227-5500

DOVACK METHOD FOR TEACHING READING.

Jefferson County Board of Public Instruction, Monticello

OE No. 68-6004 Operational Project

Amount sought - \$67,004

The DOVACK (differentiated, oral, visual, aural, computerized, kinesthetic) self-pacing method for teaching reading to retarded children will be field tested in a portable classroom. Reading deficiencies of individual students will be isolated by computer analysis and by review of tape recordings of stories dictated by the students. Printed versions of these stories will be played back for the students on the computer's display screen, where visual recognition of the words can be made by the student. The student will also be able to trace partially known words with felt tip pens. The observing teacher, in this way, can notice where reading difficulties exist and can list deficiencies that must be corrected. Three experimental groups, each composed of 30 retarded readers drawn from grades 1-6, will be taught by this method, while a parallel program--using more conventional approaches--will be conducted in three control classes, each having 30 retarded pupils. Program evaluation will be made in terms of adaptability, effectiveness, and economic feasibility of the experimental group methods in comparison with the control group methods as results of reading tests are computer compiled and analyzed. Counties served: Jefferson.

Further information: Desmond M. Bishop, Superintendent of Public Instruction, P. O. Box 499, Monticello, Florida 32344. (904) 997-2022

IMPROVED EDUCATIONAL PROGRAM THROUGH INTER-SCHOOL COMMUNICATIONS.

Moore County Board of Education, Carthage

OE No. 68-6379 Operational Project

Amount sought - \$169,308

Audiovisual aids, closed-circuit television, computer-assisted instruction, and flexible scheduling will be utilized to achieve individualized instruction in nine elementary schools, a new model high school, and a community college to be located in an educational park. High school students will participate in special classes and extracurricular activities to learn operation and use of data processing equipment. Cooperative educational efforts, involving school personnel from surrounding administrative units, will be directed toward curriculum upgrading; and such aids as radio, teletype, telephone teacher, telelecture, telescript, teletrainer, computers, and television will be used to motivate students to higher academic achievement, individualize instruction and study, and provide the student an opportunity to understand the importance of modern electronic devices. Specialized teaching methods will be designed for the model school area. Counties served: Chatham, Harnett, Hoke, Lee, Montgomery, Moore, Randolph, Richmond, Scotland.

Further information: R. E. Lee, Superintendent, Moore County Schools, Box 977, Carthage, North Carolina 28327. (919) 947-2976

A RURAL COUNTY COMPUTER-RELATED INSTRUCTIONAL TECHNOLOGY PROJECT.

Wakulla County Board of Instruction, Crawfordville

OE No. 68-6399 Operational Project

Amount sought - \$176,704

Computer-based instructional (CBI) materials in mathematics, reading, and spelling, which are successfully in use in urban/suburban areas, will be validated via a time-sharing, remote-processing computer for use by underachieving rural students. The CBI materials used will be adapted to local needs, teachers will be trained in their use, and evaluation instruments will be assembled or developed for measuring achievement and interest. Special English language materials will be prepared for both CBI and conventional classroom use to change some of the colloquial speech patterns of the area. To develop positive parental attitudes towards the program, a series of adult presentations will be developed that will provide relevant information about CBI, the nature and benefits of education in general, and the role of educational innovations in their children's lives. Parents will also be familiarized with community service agencies, libraries, and educational opportunities open to them. Counties served: Wakulla

Further information: William E. Whaley, Superintendent of Public Instruction, P. O. Box 98, Crawfordville, Florida 32327. (904) 926-3661

DEVELOPING A CITY CENTER FOR LEARNING.

Independent School District No. 625, St. Paul

OE No. 68-6499 Operational Project

Amount sought - \$200,000

A diagnostic-remedial center and a nongraded primary demonstration school will be operated by an educational service and resources center. This center will be established as part of a community program to rehabilitate and revitalize the core of an urban area. The primary school will serve as the foundation for the educational-progress activities of the center and will emphasize intensive parental and community involvement. The center will also be concerned with student, teacher, and curriculum development. Multi-media resources, including audiovisual materials, realia collections, and libraries, presently being used in the various schools will be expanded by a task force from the center; mobile laboratories will be provided; and units of computer-assisted instruction will be developed. Facilities for continuing vocational and avocational education will be developed for the community. Counties served: Ramsey

Further information: Donald W. Dunnan, Superintendent of Schools, 615 City Hall, St. Paul, Minnesota 55102. (612) 223-4393

PROJECT ADAIR: AUTOMATED DATA ANALYSIS FOR INSTRUCTION AND RESEARCH.
Hayward Unified School District, Hayward

OE No. 68-6677 Operational Project

Amount sought - \$63,380

Computer instruction will be given to 4,200 students and related inservice training, given to 113 teachers over a two-year period. Before the school year starts, a special computer programming course will be given to 30 teachers; these teachers will then help plan the program and will, in turn, train 113 teachers from public and nonpublic schools in the skills necessary to use computers and other automated data processing equipment and in the techniques of teaching students the fundamental concepts of the computer as a problem-solving tool. Students in six high schools will receive instruction in computer science as it relates to courses in business education, science, mathematics, and social studies. Students will be taught to write computer programs and apply the computer as a problem-solving tool in these subject areas. Techniques for refining and further developing written student programs will be facilitated by the use of optical scanners and by the services of two systems analysis consultants to help the students produce introductory programs for a computer. Throughout the program, teachers will develop new curriculums in different subjects and at different grade levels, with emphasis on the related role of computers. Counties served: Alameda.

Further information: William L. Cunningham, Superintendent of Schools, 1099 "E" Street, Hayward, California 94544. (415) 538-6100 Ext. 211

PILOT CITIES AREA DEMONSTRATION SCHOOLS.

Board of Education of the City School District of the City of Cincinnati, Cincinnati

OE No. 68-6700 Planning Project

Amount sought - \$125,000

A complete school program will be planned for one model elementary school and one model junior high school to be established within the pilot cities area of Cincinnati. Ten task force committees will be formed to study various aspects of the school program; committee areas of concern will include computer assisted instruction, preschool programs, teacher development, and a community-center program. Counties served: Hamilton

Further information: Paul A. Miller, Superintendent, 230 East Ninth Street, Cincinnati, Ohio 45202. (513) 621-7010

INDIVIDUALIZED INSTRUCTION PROGRAM FOR PRIMARY GRADE PUPILS.

Joint District No. 8, Shawano

OE No. 68-6749 Operational Project

Amount sought - \$100,000

An attempt will be made to devise a learning environment at the primary grades level that will be equally optimized for Menominee and non-Indian pupils alike. Efforts will be directed to planning the overall design and operating procedures for a computer-assisted teaching system, whereby basic concepts and skills in primary grade communications arts and mathematics can be taught on an individual, self-paced basis. Coincidentally a professionally-staffed in-service program will undertake to develop within-staff competence in producing CAI-series optimally matched to learner needs specific to the local area. Counties served: Shawano

Further information: Arnold A. Gruber, Superintendent, 204-210
South Franklin Street, Shawano, Wisconsin 54166. (715) 526-3195

USE OF COMPUTERS FOR ADMINISTRATION AND GUIDANCE AND COUNSELING
FISCAL YEAR 1966

GEAUGA COUNTY AREA EDUCATIONAL AND CULTURAL CENTER.

Geauga County Board of Education, Chardon

OE No. 66-18

Planning Project

Terminated

Amount sought - \$51,950

Sixteen service areas will be studied independently by planning committees working within the framework of four divisions: Instructional Resources and Materials, Instructional Program Development, Pupil Personal Services, and Centralized Administrative Facilities and Functions. The service areas include an instructional materials center, visiting specialists in the fine and performing arts, specialized library services, specialists in content area, a nursery school program, adult education, special education, vocational education, remedial reading, physical fitness and health, psychological, guidance, and sociological personnel; educational research and computer services, central purchasing, transportation coordination, food service, and school plant planning. Needs are to be assessed and educational programs and cultural services planned to meet them. Number of persons to be served: 14,000 public school students, 1,722 nonpublic school students, and 39,278 adults.

Further information: Dr. E. Dunmire, Assistant Superintendent, Geauga County Schools, Courthouse, Chardon, Ohio. (216) 285-2222 Ext. 48 or 49

COOPERATIVE PROJECT TO PROVIDE SUPPLEMENTAL SERVICES TO A GROUP OF
ELEMENTARY AND SECONDARY SCHOOLS OF NEW MEXICO.

Board of Education of the City of Santa Fe

OE No. 66-48

Operational Project

Amount sought - \$299,500

An education services center for central and northern New Mexico (the general area served by the New Mexico Research and Study Council) will provide for curriculum development in reading, vocational education, and health and physical education; an instructional materials laboratory; audiovisual equipment; and library, industrial arts, and science mobile units. Psychological services will include guidance and counseling; testing and test scoring; programmed learning; research; and speech therapy. The center will also offer music and cultural programs, special education, a planetarium, adult education, and data processing. Twenty-six school systems now affiliated in the Council will make use of the center as a facility and clearing house for cooperative educational activities. Number of persons to be served: 131,000 elementary and secondary school students; 3,500 school staff members; 9,500 pre-schoolers; and 30 adult students.

Further information: Orien C. Shockley, Superintendent, Santa Fe Public Schools, Santa Fe, New Mexico 87501. (505) 982-2631

SURVEY AND EVALUATION OF EDUCATIONAL NEEDS AND RESOURCES OF THE REGION
COMPRISED OF CLARION, FOREST, JEFFERSON, MERCER, AND VENANGO COUNTIES
OF PENNSYLVANIA.

Jefferson County Board of Education, Brookville
OE No. 66-84 Planning Project

Terminated

Amount sought - \$31,378

Total community planning for improved education is to include an extensive survey of human and material resources in the 5-county area; cooperation with educational and cultural institutions to determine the best ways of using these resources in meeting the needs of area school children; selecting ideas for operational projects; and developing plans for implementing these ideas. To be considered are: experimental learning and demonstration, instructional materials, psychological and guidance services, curriculum development, inservice education, research and development, electronic data processing, publication and communication facilities, and continuing education. An advisory committee will be comprised of county superintendents and representatives from local school districts, private schools, and other educational agencies. Number of persons to be served: 71,350.

Further information: John D. McLain, Area Curriculum Coordinator,
Clarion State College, Clarion, Pennsylvania. (814) 226-6000 Ext. 236

TEXAS GULF COAST SCIENCE EDUCATIONAL RESOURCES CENTER.

Houston Independent School District, Houston
OE No. 66-86 Planning Project

Terminated

Amount sought - \$143,234

A detailed analysis will be made of the need in the Gulf Coast area, which includes Harris and adjacent counties, for a Science Educational Resources Center, and information will be collected about ways and means of meeting the need. The activities of the proposed center would be to demonstrate new ways to teach laboratory science and do research; to make scientists available to assist instruction; to establish procedures for scientific field trips; to organize research programs to test materials and methods of science instruction; to establish inservice programs; to plan student projects in cooperation with institutions of higher education; and to develop television and radio programs. Several existing pilot projects will be extended and the feasibility of a number of projects will be established, including traveling museum exhibits and use of computer retrievable library systems. This project is estimated to serve 500,000 elementary and secondary science students.

Further information: Joseph Strehle, Supervisor of Science, Houston
Independent School District, 1300 Capitol, Houston, Texas 77002.
(713) CA 4-9871

REGIONAL EDUCATIONAL SERVICES CENTER THROUGH UNIFIED EFFORT:
PROJECT RESCUE.

Danbury Board of Education, Danbury

OE No. 66-146

Planning Project

Terminated

Amount sought - \$70,160

The center is to be planned in four sections: 1) Evaluation and Remediation, to provide supplementary psychological, social, health, and guidance and counseling services; in-school, out-of-school and after-school remediation programs; and programs for the educationally and culturally disadvantaged. 2) Research and Demonstration, to assist teachers in developing new ideas to disseminate research findings and to demonstrate new methods and technology. 3) Community and Cultural Development, to coordinate the utilization of all community and cultural resources. 4) Educational Media and Materials Resources, to include television studios, a data processing center, mobile units, and a multi-media audiovisual system. Number of persons to be served: 42,618 children.

Further information: Richard Rausch, Associate Superintendent, Danbury Board of Education, Mill Ridge Administration Building, Mill Ridge, Danbury, Connecticut 06811. (203) 748-5585

A PROPOSAL FOR A CONTINUOUS PROGRAM OF INDEPENDENT STUDY FROM ELEMENTARY THROUGH SECONDARY EDUCATION.

Niskayuna Central School District No. 1, Schenectady

OE No. 66-172

Planning Project

Terminated

Amount sought - \$22,909

Niskayuna School District wants to revise its libraries so as to include a variety of auto-instructional devices such as self-contained single concept film projectors, coupled slide projectors and tape recorders, reading pacers, teaching typewriters, micro storage equipment, and an electronic information retrieval system. A highly qualified person is to be employed to coordinate all phases in the planning and implementation of this program and advice is to be sought from consultants. About 3,100 students will be served.

Further information: Joseph H. Oakey, Principal, Niskayuna High School, Schenectady, New York 12309. (518) 393-6651

STUDENT PROGRAMING AND COUNSELING ASSISTANCE BY DATA PROCESSING FOR
SOUTHWEST MISSISSIPPI.

McComb Municipal Separate School District, McComb

OE No. 66-173

Operational Project

Terminated

Amount sought - \$15,500

A center will be established to process data by computer to aid in the guidance, instruction, and curriculum planning of students in five counties. The effectiveness of programed instruction in algebra and of different ways to teach reading will be evaluated. Dropping out of school and changes in curriculum needed to prevent it will be studied. The number of children to be served is estimated at about 24,000.

Further information: R. W. Lambuth, Superintendent of Schools, Magnolia, Mississippi. (601) 783-2575

A DISPERSED SUPPLEMENTARY EDUCATION SERVICES CENTER FOR THE GENESEE
VALLEY REGION OF UP-STATE NEW YORK.

Central School District No. 3, Town of Irondequoit, Rochester

OE No. 66-180

Planning Project

Terminated

Amount sought - \$183,773

To be planned is the establishment in the Genesee Valley Region, which is comprised of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates Counties, of a center consisting of a Production and Control Unit near Rochester that would be in communication by microwave and cable with other units in the nine counties. Each subunit would be equipped to receive, reproduce, and distribute video, sound, and facsimile transmissions from the central unit to any children or teachers in its area. Services, ideas and instructional materials and equipment for teachers and students will be created and supplied. Teachers in service will be trained. The Center will work closely with the Rochester Area Educational Television Association, bring the educational programs of the Rochester Museum of Arts and Sciences to students and adults, and extend the activities of the Rochester Art Gallery. Personnel and equipment for data processing will be acquired. Assistance will be given in making existing library resources available. The number of persons to be served is estimated at 257,238 students and teachers.

Further information: Earle W. Helmer, 370 Cooper Road, Rochester, New York 14617. (716) FI 2-5500

SUPPLEMENTARY EDUCATIONAL CENTER FOR CLINTON, ESSEX AND FRANKLIN COUNTIES.
Board of Cooperative Educational Services of Clinton County, Ellenburg Depot
OE No. 66-190 Planning Project Terminated

Amount sought-\$40,200

A 3-county educational center is to be planned for pupil personnel services such as psychologists, social workers, counselors, remedial specialists, medical and health personnel, and psychiatric consultants. It is also to serve as a communications center for audiovisual materials, radio and television, programmed instruction, microfilming, and data processing; a center of innovation for the initiation of new programs, such as pre-nursery, preschool parent education, special classes, after-school programs, vocational school programs, summer school, outdoor recreation, and units for art, music, theater, science, language and library; a center for inservice education to initiate and coordinate programs for teachers working with special classes or exceptional children; and a center for enrichment in education to provide special educational and cultural programs and services which would supplement regular school programs. There are 152,764 residents in the area to be served.

Further information: John W. Harrold, Executive Officer, Ellenburg Depot, New York 12935. (518) 561-2251 or 594-7627

INYO-SAN BERNARDINO COUNTIES PLANNING GRANT.

Office of the County Superintendent of Schools of San Bernardino County
OE No. 66-272 Planning Project Terminated

Amount sought ~ \$236,533

This project is to include a survey of the area's educational needs, gathering data about exemplary programs, examination of pertinent research, exploration of available resources, analysis of data, and establishment of priorities. It is to result in plans for supplementary educational centers and exemplary educational programs to serve both counties. Emphasis will be on educational television and radio, year-round use of school and community facilities, inservice training for teachers, data processing, a mobile child guidance clinic, a mobile health unit for children, mobile centers for art museum services, a mental health program combining guidance and curriculum services, extensive educational trips, and use of community cultural resources. Number of persons to be served: 200,000 students.

Further information: Roy C. Hill, County Superintendent of Schools, 5th Floor, Hall of Records, 172 West Third Street, San Bernardino, California 92403. (714) TU9-0111 Ext. 412

NASSAU COUNTY PLANNING PROPOSAL.

Union Free School District No. 15, Towns of Oyster Bay and North Hempstead,
Jericho

OE No. 66-326

Planning Project

Terminated

Amount sought - \$400,371

An interlocking system of regional service centers will be planned to meet suburban school needs in areas such as curriculum development and adaptation, inservice education, home and school pupil personnel services, communications and media development, library services, cultural and special sciences services, and data automation. Planning is to include inventories of needed resources and services and of those which are available. Visits are to be made to similar regionally coordinated educational programs. County and subregional pilot action services and centers will be designed and implemented. A center may provide services such as diagnosis of learning and adjustment problems, psychotherapy for students and their families, and special personnel, including psychologists, speech therapists, reading specialists, and guidance counselors. Number of persons to be served: 500,000, including preschoolers, elementary and secondary school students, and adults.

Further information: Kenneth J. Dunn, Executive Director, The Education Council for School Research and Development, 450 Jericho Turnpike, Mineola, New York 11501. (516) PI 2-5135.

THE TEXAS COOPERATIVE DISSEMINATION PROJECT.

Canyon Independent School District, Canyon

OE No. 66-343

Planning Project

Terminated

Amount sought - \$24,555

The area to be served by this project includes the 26 counties in the Panhandle of Texas. To be planned is a pilot project to find new information in all fields of learning, consider its relevancy to subjects taught in all grades of school, adapt it to the instructional program, make it available to teachers, and help the teacher make use of it. These purposes will be accomplished through the use of information retrieval systems, exemplary programs, new media of communication, consultants, conferences, and clinics. The services of a planning staff will be obtained by contract, a Regional Central Planning Committee of 15 members will be formed, and a Committee of Consultant-Evaluators will be selected. Surveys will be made to verify the assumed need for the program. The number of persons to be served is estimated at 5,000 teachers and 55,000 pupils.

Further information: Huelyn Laycock, Superintendent of Schools, Canyon, Texas (806) OL 5-2509

SUPPLEMENTARY EDUCATIONAL CENTER FOR BUCKS COUNTY.
Bucks County Board of School Directors, Doylestown

OE No. 66-366 Planning Project Terminated
Amount sought - \$28,542

To explore ways of developing technology for intensifying the learning process to meet the needs and interests of each pupil, planning committees will study child and youth study services, including diagnostic procedures, staffing patterns, grouping, communicative skills, creativity, and computer technology; instructional media services, including textbooks and nontext materials, industrial and cultural resources, multilevel learning activities, educational television, video tape, humanities curriculum, and library resources for students and teachers; and training, advisory, and consultant services, including personnel training and parent education. A master plan for developing this technology through innovative services and exemplary programs will offer solutions to meet locally identified needs for individualized instruction. A supplementary center is to be organized through which these services and programs will be translated into classroom practice by coordinating research, development, evaluation, and dissemination of instructional techniques and educational programs and media. Number of persons to be served: 100,000 students, grades K-12.

Further information: Dr. Charles E. Brewin, Jr., Assistant County Superintendent of Schools, County Administration Building, Doylestown, Pennsylvania. (215) 348-2940

THE SOUTH KINGSTOWN SCHOOL DEVELOPMENT PROGRAM.
South Kingstown School Department, Wakefield

OE No. 66-406 Planning Project Terminated
Amount sought - \$29,040

Planning will be done to organize the school to accommodate children with different rates of learning and to revitalize the Adult School. Curriculum will be planned to provide continuity of instruction, to convert "Operation Headstart" efforts into a nongraded program for children of the ages of 4, 5, and 6 based upon the theories of the Gesell Institute, and to appraise the value of the Initial Teaching Alphabet. The most effective use of the talents, training, interest, and experience of the teacher will be planned through team teaching and employment of lay persons in noninstructional capacities. Planning will include consideration of possibilities for establishing a materials center and curriculum laboratory, educational television, and data processing. Study will be given to establishing a community-school type of service. To be planned also is a program to increase cooperation among school systems, community agencies, and universities.

Further information: Lesley H. Browder, Assistant Superintendent, South Kingstown School Department, 71 Columbia Street, Wakefield, Rhode Island. (401) 789-6559

BOOK CATALOG - J.H.S. LIBRARIES.

Union Free School District No. 22, Farmingdale

OE No. 66-461

Operational Project

Terminated

Amount sought - \$15,300

A book catalog, produced in quantity by data processing equipment, will replace the card catalog system presently in use in two junior high school libraries and will serve a third library in a junior high school annex to be occupied in September 1966. The book will include a classified arrangement of titles with bibliographic information and title-a-line entries arranged by author, title, and subject. It will be coded to show the building in which each is housed. From the cards which are punched for purchase orders, the data processing equipment will write the order and store the information about each item for retrieval in book catalog form. Subcatalogs and bibliographies for specific subject areas will be rapidly available. Students and teachers will have access to the catalog in classrooms, the public library, and the school library. Number of persons to be served: 3,000 secondary school students and 180 faculty members and public library staff.

Further information: Dr. Hamilton S. Blum Assistant Superintendent -- Instruction, Howitt Junior High School, Grant and Van Cott Avenues, Farmingdale, New York 11735. (516) 249-7600 Ext. 23

PLANNING A PILOT PROGRAM K-12.

Timberlane Regional School District, Plaistow

OE No. 66-505

Planning Project

Terminated

Amount sought - \$31,400

A model school district, grades K-12, will be planned to include the following programs: Elementary level--library resources to encourage individual study skills and independent research; an organizational pattern of nongraded instruction for developing individualized study; coordination of subject-matter areas with the high school curriculum; guidance teams of counselors and social workers; expanded services in art, music, foreign languages, and physical education; and improved programs for the atypical child. Secondary level--cooperative team teaching and variable group instruction; flexible scheduling; maximum utilization of new technology, including data processing, educational television, and learning resource centers; and a regional teacher-educational program. The exemplary system is to demonstrate to schools throughout the State how existing facilities may be adapted to new ideas and how innovations may be incorporated into curriculum development and construction. The population of the District is 6,500 persons of whom 4,568 are students.

Further information: David L. Morris, Timberlane Regional School District, P. O. Box 248, Plaistow, New Hampshire 03865. (603) 382-8344 Ext. 6

PLANNING GRANT APPLICATION FOR SUPPLEMENTARY EDUCATIONAL CENTER.

Department of Education, San Diego County, San Diego

OE No. 66-507 Planning Project

Amount sought - \$109,000

A center is to be planned by a five-member task group taking into account the educational needs of the community and available educational and cultural resources. Survey questionnaires, interviews, and other data collection techniques are to be used for determining needs. Social science and management specialists are to be consulted. District computer facilities will be used to process data. An analysis of needs and resources by the task group will result in recommendations for specific center projects. To be considered are: English as a second language for the Spanish-speaking community; programs for the educationally and economically disadvantaged and for science-oriented students; water safety; and increased learning opportunities for children in rural areas. Number of persons to be served: 280,000 students.

Further information: Dr. Cecil D. Hardesty, Superintendent of Schools, 6401 Linda Vista Road, San Diego, California 92111. (714) 278-6400 Ext. 211

SURVEY AND EVALUATION OF EDUCATIONAL NEEDS AND RESOURCES OF THE REGION COMPRISED OF ADAMS, CUMBERLAND, PERRY, MIFFLIN, JUNIATA, HUNTINGDON, FULTON, AND FRANKLIN COUNTIES OF PENNSYLVANIA.

Joint Board of the Shippensburg Regional Audio-Visual Library and Instructional Materials Center, Shippensburg

OE No. 66-533 Planning Project

Terminated

Amount sought - \$46,822

A study for total regional planning and utilization of resources will include experimental learning and demonstration; instructional materials such as library and audiovisual media, psychological and guidance services, curriculum development, inservice education, research and development, electronic data processing, publication and communication facilities, and continuing education. Planning will involve an extensive survey of available human and material resources in an 8-county area, selection of innovative ideas and exemplary programs to be developed, and development of plans for implementing selected ideas. Representatives of educational and cultural institutions will consider cooperative arrangements which may be developed to provide regional services to the schools. An estimated 107,188 persons will be served by the project.

Further information: Frank L. Hair, Area Curriculum Coordinator, Shippensburg State College, Shippensburg, Pennsylvania. (717) 532-2184

IMPROVEMENT OF EDUCATIONAL EXPERIENCES FOR ALL STUDENTS THROUGH THE
DEVELOPMENT OF A MODULAR CURRICULUM.

Independent School District No. 274, Hopkins

OE No. 66-546

Planning Project

Terminated

Amount sought - \$42,763

A modular secondary school curriculum is to be planned to offer students opportunities for continuous progress. Data processing will be used for assigning students according to ability to flexibly scheduled small groups or "modules." A study of how innovative methods of instruction and more efficient organization may be incorporated into an educational system will take into consideration programs such as independent study, open laboratories, resource centers, student grouping, guidance and counseling, allocation of class time in subject-matter areas, student and teacher schedules, class size and loading, and teaching aids. Planning steps are to include forming an advisory committee to guide the planning staff; reviewing research results; analyzing pilot programs; developing inservice training for teachers and administrators; designing an application of technical and operational requirements for the proposed curriculum; translating input data requirements into machine processible form; simulating a modular system; preparing the final system curricular design; and establishing a master plan for implementing a modular curriculum. Number of persons to be served: 350,000 pupils and 18,000 staff members.

Further information: M. H. Ojala, Assistant Principal, 1001 Highway #7, Hopkins, Minnesota 55343. (612) 935-5571 Ext. 30

COMPUTER-BASED TEST DEVELOPMENT CENTER.

Multnomah County Intermediate Education District, Portland

OE No. 66-601

Planning Project

Terminated

Amount sought - \$13,168

This project results from dissatisfaction with nationally standardized tests and a desire to develop tests locally. These planners declare that national tests are concerned with the performance of students relative to each other but not with attainment of specific objectives of a training program; that is, they serve a normative but not a criterion function. They want to design specific tests for a given set of curricular offerings with a given type of student. The Metropolitan Area Testing Program Board and other participants will plan a computer-based test-development center that can retrieve test items rapidly from a stored pool of items coded by content area and student characteristics. The projects will serve an estimated 170,000 elementary and secondary school students.

Further information: James H. Beaird, Associate Research Professor, Teaching Research Division, Oregon State System of Higher Education, Monmouth, Oregon 97361. (503) 757-1421

CALIFORNIA REGIONAL EDUCATIONAL INFORMATION CENTERS.

Kern County Superintendent of Schools, Fresno County Schools Office, Los Angeles Unified School District of Los Angeles County, Contra Costa County Superintendent of Schools Office, Sacramento County Superintendent of Schools, San Francisco Unified School District, County of Orange Superintendent of Schools, Santa Clara County Superintendent of Schools, Sonoma County Superintendent of Schools, Office of the Ventura County Superintendent of Schools; Bakersfield, Fresno, Los Angeles, Pleasant Hill, Sacramento, San Francisco, Santa Ana, San Jose, Santa Rosa, Ventura.

OE No. 66-711 Operational Project Terminated

Amount sought - Kern County, \$29,592; Fresno County, \$27,672; Los Angeles County, \$115,000; Contra Costa County, \$42,758; Sacramento County, \$53,443; San Francisco Unified School District, \$43,323; Orange County, \$51,391; Santa Clara County, \$14,000; Sonoma County, \$34,100; Ventura County, \$47,194. Total: \$458,473

This project is the result of 7 years of research and developmental work sponsored by the Cooperative Research Branch of the U. S. Office of Education and the California State Department of Education. Its purpose is to establish regional supplemental centers to process raw educational data. Two centers are now in operation in the State as prototypes. They offer preservice and inservice training to teachers, counselors, and school administrators in the use of computers. More demonstration and training centers are needed. This project is designed primarily to train center directors and their staffs and to demonstrate the new system of educational intelligence. The additional centers will be established in the 10 counties and will serve an estimated 300,000 students.

Further information: Theodore R. Smedberg, Sacramento County Superintendent of Schools, 6011 Folsom Blvd., Sacramento, California 95819. (916) 454-2821

EDUCATIONAL DATA PROCESSING.

Concordia Parish School Board, Vidalia

OE No. 66-852 Planning Project Terminated

Amount sought - \$24,390

Investigation will be undertaken of the need for a data processing system, including a small computer, to be used in modernizing the curriculums on science, mathematics, and business courses in area school districts.

Further information: J. O. Lancaster, Superintendent, P. O. Box 548, Vidalia, Louisiana 71373. (318) 336-4226

EDUCATIONAL REORGANIZATION AND REORIENTATION THROUGH THE PERSONALIZATION OF INSTRUCTION.

Anniston City Schools, Anniston

OE No. 66-858 Planning Project

Terminated

Amount sought - \$54,485

A new approach to public education will be planned that will require designing new and unique physical facilities, reorganizing faculty, and creating a new relationship among the students, community, home, and school. The lessons for all students will be so designed that each may progress at his own rate of learning. A close surveillance on each child's progress will be maintained by the academic counselor and guidance counselor with the aid of a computer.

Further information: Floyd McLeod, Administrative Assistant, Anniston Public Schools, Anniston, Alabama 36201. (205) 237-5508

RESOURCE, PRODUCTION AND SERVICE CENTER.

Board of Education of the City of Orange, Orange

OE No. 66-924 Planning Project

Terminated

Amount sought - \$50,535

A demonstration resource center, a materials production area, a computer center, and a closed circuit television system will be planned.

Further information: Leonard Cronk, Superintendent of Schools, 369 Main Street, Colgate Building, Orange, New Jersey 07050. (201) 675-8282

SURVEY AND EVALUATION OF EDUCATIONAL NEEDS AND RESOURCES OF THE REGION COMPRISED OF CENTRE, CLEARFIELD, CLINTON, AND LYCOMING COUNTIES OF PENNSYLVANIA.

Centre County Board of Education, Bellefonte

OE No. 66-950 Planning Project

Terminated

Amount sought - \$132,600

A regional study of needs and resources will emphasize experimental learning, instructional materials, guidance services, curriculum development, inservice education, data processing, continuing education, and cultural enrichment.

Further information: C. Herbert Larson, Jr., Area Curriculum Coordinator, Lock Haven State College, Lock Haven, Pennsylvania 17745. (717) 748-3465

CENTRAL MINNESOTA EDUCATIONAL RESEARCH AND DEVELOPMENT COUNCIL.

Independent School District #47, Sauk Rapids

OE No. 66-1129 Planning Project

Terminated

Amount sought - \$53,000

Planning will be done to coordinate activities of all schools in seventeen counties; a research program, in-service training, data processing, and instructional television may be provided.

Further information: K. L. Halvorson, Superintendent, Sauk Rapids Public Schools, 901 - 1st Street South, Sauk Rapids, Minnesota 56379. (612) 251-7373

CURRICULUM ENRICHMENT CENTER.

Board of Cooperative Educational Services of Chenango County, Norwich

OE No. 66-1146 Operational Project

Amount sought - \$165,257

The center will include facilities for cataloging library and audiovisual materials by data processing, equipment and supplies for the production of teaching materials, and a professional curriculum library.

Further information: Ernest Youmans, District Superintendent, Chenango County, Norwich, New York 13815. (607) 334-2281

A PLAN TO IDENTIFY THE USE AND FEASIBILITY OF AN INFORMATION, STORAGE AND RETRIEVAL SYSTEM TO SELECTED SCHOOLS IN THREE COUNTIES.

Westmoreland County Board of School Directors, Greensburg

OE No. 66-1148 Planning Project

Amount sought - \$38,500

Various systems of storing and retrieving instructional materials and information will be investigated; a pilot program will develop instructional materials and evaluate the systems.

Further information: Arthur W. Reardon, Assistant County Superintendent and Director, Westmoreland County Regional Instructional Materials Center, 140 East Otterman Street, Greensburg, Pennsylvania. (412) 837-2815

EDUCATIONAL DEVELOPMENT THROUGH TECHNOLOGY.

Dover Special School District, Dover

OE No. 66-1253 Planning Project

Terminated

Amount sought - \$19,200

The project will be the nucleus of a State educational information technology system to provide educational research and development services and will involve staff members, teachers, students, and State Department of Education and University of Delaware personnel.

Further information: Justin W. Wilson, Jr., Superintendent of Schools, Dover Special School District, 945 Forrest Street, Dover, Delaware 19901. (302) 734-4104

INFORMATION DISSEMINATION CONCERNING EXEMPLARY PROGRAMS.

Claremont Unified School District, Claremont

OE No. 66-1479 Operational Project

Amount sought - \$18,399

An information service will be established to disseminate information regarding three exemplary programs under way in the district. These programs involve a team teaching project, an ungraded primary education program, and a computer based flexible scheduling program at the secondary level.

Further information: Dr. John B. Brinegar, Superintendent, Claremont Unified School District, 2080 North Mountain Avenue, Claremont, California 91711. (714) 624-9041

AREA IX TOTAL INFORMATION SYSTEM.

Scott County Board of Education, Davenport
OE No. 66-1557 Operational Project

Amount sought - \$307,000

A pilot project utilizing data processing for information retrieval will be operated for a 3-county, 5-district area.

Further information: Louis L. Pickett, Superintendent, Scott County Public Schools, Court House, Davenport, Iowa 52801. (319) 322-3511

OREGON TOTAL INFORMATION SYSTEM (OTIS).

Board of Education for the Intermediate Education District, Lane County

OE No. 66-1579 Planning Project Terminated

Amount sought - \$20,700

A study will be made of existing data processing and computer-oriented systems to improve administrative management in Oregon schools.

Further information: Dr. William C. Jones, Superintendent, Lane County Intermediate Education District, 748 Pearl Street, Eugene, Oregon. (503) 342-5576

AN EDUCATIONAL RESOURCES CENTER.

Vicksburg Municipal Separate School District, Vicksburg

OE No. 66-1653 Planning Project Terminated

Amount sought - \$39,970

Plans will be made to establish a resources center using automatic data processing and television to improve teacher education and extend the services of specialized teachers.

Further information: E. B. Martin, Office of the Superintendent, Vicksburg Public Schools, Vicksburg, Mississippi 39180. (601) 636-0160

REGIONAL EDUCATIONAL DEVELOPMENT ORGANIZATION (REDO).

Consolidated High School District No. 230, Palos Hills

OE No. 66-1665 Planning Project Terminated

Amount sought - \$122,186

Planning will be undertaken to study needs for and develop additional educational programs; to centralize film and record library and computer science resources; and to create a planning center for 63 public school districts in South Cook County.

Further information: Roy Erdman, Director, Business Services, 111th and Roberts Road, Palos Hills, Illinois 60464. (312) 448-8000

A COMPACT TO PROMOTE AND IMPLEMENT CURRICULAR AND SCHEDULING INNOVATIONS IN SECONDARY SCHOOLS.

Woodburn Public Schools, Woodburn

OE No. 66-1700 Planning Project Terminated

Amount sought - \$37,200

A computerized modular scheduling system will be developed to serve schools throughout the State.

Further information: Ray L. Talbert, Bend Senior High School, 230 East Sixth Street, Bend, Oregon. (503) 382-2131

PALO ALTO UNIFIED SCHOOL DISTRICT COMPUTER-BASED STUDENT COURSE
SELECTION PROGRAM.

Superintendent of Palo Alto Unified School District, Palo Alto
OE No. 66-1701 Planning Project Terminated
Amount sought - \$49,500

Planning and a pilot project will be undertaken to develop a
guidance program that uses a computer to aid students in selecting
courses.

Further information: Murray Tondow, 25 Churchill Avenue, Palo Alto,
California. (415) 327-7100

REGIONAL RESEARCH AND DEVELOPMENT CENTER-REPORTING STUDENT PROGRESS
IN TERMS OF MODULAR PROGRESS.

Masconomet Regional District School Committee, Boxford
OE No. 66-1819 Planning Project Terminated
Amount sought - \$9,850

Research studies will evaluate the possibilities of establishing
a regional computer center; a new concept of reporting to parents
in terms of completion of objectives, rather than in terms of grade
comparison, will be developed.

Further information: Julius H. Mueller, Superintendent of Schools,
Endicott Road, Boxford, Massachusetts, Mail address: R.F.D., Tops-
field, Massachusetts 01983. (617) 887-2323

COMPUTER-CONTROLLED MEDIA RESOURCE AND DATA CENTER FOR AREA XV, IOWA.
Wapello County Board of Education, Ottumwa

OE No. 66-1880 Operational Project
Amount sought - \$199,914

A combined Computer-Controlled Media Resource Center and Regional
Data Center will be established to provide easy access to a compre-
hensive inventory of instructional materials and equipment for the
teachers in 10 counties, maintain a library of media resources, store
computer information about the media, provide for teacher requests
for media by teletransmission, ship such materials, and conduct train-
ing programs in media usage and preparation for inservice teachers.
The Data Center will store and retrieve data about pupils, schools,
expenditures, etc., useful in school administration, fiscal accounting,
and instruction.

Further information: Melvin A. Evringham, Superintendent, Area
XV, Iowa Technical Education Center, Ottumwa, Iowa 52501. (515)
684-6597

COMPUTER CONTROL SYSTEM AND SERVICE FACILITY TO ENHANCE QUALITY
EDUCATION AND TO EVOLVE OPTIMAL DISTRIBUTION PATTERNS FOR LARGE
URBAN CENTERS.

Board of Education, City of Chicago, Chicago
OE No. 66-2072 Operational Project

Amount sought - \$259,220

A computerized control system will be established for effective
distribution of educational films and audio-visual media through-
out the Chicago public school system.

Further information: James F. Redmond, General Superintendent
of Schools, 228 North LaSalle Street, Chicago, Illinois 60601.
(312) 332-7800 Ext. 427

PERSONALIZATION OF LEARNING ACHIEVED THROUGH ORGANIC-EVALUATION.

Anniston City Board of Education, Anniston

OE No. 66-2337 Operational Project

Amount sought - \$103,125

An evaluation system will be programmed for computers to permit continuous diagnosis of pupil progress.

Further information: J. Revis Hall, Superintendent of Schools,
Anniston City Board of Education, 1429 Woodstock Avenue, Anniston,
Alabama 36201. (205) 237-2808

EDUCATIONAL INTELLECTUAL CENTER.

Yonkers City School District, Yonkers

OE No. 66-2475 Operational Project

Amount sought - \$204,598

An educational intellectual center will provide computer based library services and educational materials to students and professional personnel in Yonkers and the surrounding area.

Further information: Stanley Wynstra, Superintendent, 138 South
Broadway, Yonkers, New York 10701. (914) 936-4567

USE OF COMPUTERS FOR ADMINISTRATION AND GUIDANCE AND CONSELING
FISCAL YEAR 1967

AUTOMATION FOR ISOLATED SCHOOLS.

Fremont County Vocational High School, Lander

OE No. 67-2813 Planning Project

Terminated

Amount sought - \$10,585

A complete study of a plan that will reduce the administrative bottlenecks regarding student-scheduling and record-keeping will be made. The study phase of the project will be used to select a data processing firm that will work with the planning staff in developing a plan for automating scheduling and record-keeping. An in-service training program will be planned, and an operational budget will be drawn up.

Further information: Dr. John W. Reng, Superintendent, 1000 Main Street, Lander, Wyoming. (307) 332-4711

FLEXIBLE EDUCATIONAL PARK PLANNING FORMATS.

The District of Columbia Public Schools, Washington, D. C.

OE No. 67-2879 Operational Project

Amount sought - \$49,235

A study will be made to determine the type of educational park best suited to the needs of the area. Educational-community service specifications will be established to guide architectural planning and a PERT computerized educational park planning program will be developed.

Further information: Joseph M. Carroll, Assistant Superintendent, Department of Research, Budget and Legislation, Franklin Administration Building, 13th and K Streets, N. W., Washington, D. C. 20005.

TOTAL APPLICATION OF DATA PROCESSING TECHNIQUES TO PUPIL
TRANSPORTATION.

Hamilton County Board of Education, Cincinnati

OE No. 67-3210 Planning Project

Amount sought - \$145,772

Plans will be made to develop a pupil transportation plan based on the application of data processing techniques to all areas of transportation management. The data processing system will serve 157 school districts with services designed to: avoid duplication of effort; provide for curriculum expansion; and efficiently utilize facilities.

Further information: John I. Wilson, Superintendent, 325 E. Central Parkway, Cincinnati, Ohio 45202. (513) 632-8441

A MULTI-DISCIPLINARY APPROACH TO IDENTIFICATION, DIAGNOSIS, AND
REMEDICATION OF EDUCATIONAL DISABILITIES.

Cooperative Educational Service Agency No. 10, Plymouth

OE No. 67-3228 Operational Project

Amount sought - \$99,975

A multi-disciplinary team, working with pediatricians, will be formed to identify and remedy educational disabilities in a tri-county area. Data processing techniques will be utilized to analyze the characteristics of the population to be served. In-service teacher training and internship programs will also be provided. Counties served: Sheboygan, Manitowac, Calumet.

Further information: Ervin Stankevitz, Coordinator, Cooperative Educational Service Agency No. 10, 111 East Mill Street, Plymouth, Wisconsin 53073. (414) 892-4914

PROJECT SERVICE: A SOUTHEAST TEXAS EDUCATIONAL SERVICES CENTER.

Orange Independent School District, Orange

OE No. 67-3299 Operational Project

Amount sought - \$217,768

A regional service center will be established to provide the following services: educational planning, curriculum development, inservice development, diagnostic aid, data processing, and instructional-materials assistance. Terminal students will be given extra attention. Curriculum specialists and data processing techniques will be employed to develop a comprehensive analysis and evaluation of each problem and expedite management functions. Forty-four school districts in eight counties will be served by the program. Counties served: Orange, Chambers, Hardin, Jasper, Jefferson, Liberty, Newton, Tyler.

Further information: M. L. Brockette, Superintendent, Orange Independent School District, 501 N. 15th Street, Orange, Texas 77630. (713) TH 3-8461

PROJECT SERVICE: A SOUTHEAST TEXAS EDUCATIONAL SERVICES CENTER.

Orange Independent School District, Orange

OE No. 67-3299 Operational Project

Amount sought - \$40,246

A regional service center will be established to provide the following services: (1) educational planning, (2) curriculum development, (3) inservice development, (4) diagnostic aid, (5) data processing, and (6) instructional-materials assistance. Terminal students will be given extra attention. Curriculum specialists and data processing will be employed to develop a comprehensive analysis and evaluation of each problem and expedite management functions. Forty-four school districts in eight counties will be served by the program.

Further information: Mr. M. L. Brockette, Superintendent, 501 N. 15th Street, Orange, Texas 77630. (713) TU 3-8461

USING DATA PROCESSING TO EVALUATE AND IMPROVE CLASSROOM INSTRUCTION IN SELECTED MISSISSIPPI SCHOOL DISTRICT.

McComb Municipal Separate School District, McComb

OE No. 67-3527 Operational Project

Amount sought - \$173,092

The Southwest Mississippi Data Processing Center will be expanded to serve all interested Mississippi school districts. Rapid evaluation will be obtained by data processing of test results, grades, pupil attendance, and pupil attitudes as recorded. Through evaluation, these data will be translated into student needs. Data print out will be quickly disseminated to teachers and administrators.

Further information: J. D. Prince, Superintendent, McComb Public Schools, 647 Louisiana Avenue, McComb, Mississippi 39648. (601) 684-4661, Ext. 4

SOUTH COOK COUNTY EDUCATIONAL DEVELOPMENT CENTER.

South Cook County Educational Development Cooperative, Palos Hills

OE No. 67-3530 Operational Project

Amount sought - \$668,581

An instructional service center will serve students and teachers in 63 school districts by coordinating all programs in the area, and providing a centralized film center, diagnostic services, library resources unit, and television and radio recording facilities. Computerized instruction programs, information storage and retrieval systems, and curriculum development programs also will be provided. Inservice leadership and teacher training programs will be directed by specialists.

Further information: William O. Fisher, Superintendent of Administering District, 111th and Roberts Road, Palos Hills, Illinois 60464. (312) 448-8000 Ext. 021

EDUCATIONAL PLANNING, REGION I, TO ESTABLISH SERVICE AND REGIONAL MEDIA CENTER.

Edinburg Consolidated Independent School District, Edinburg

OE No. 67-3550 Planning Project

Amount sought - \$67,524

An education and educational media service center will be planned. The center is to provide inservice education, pupil-diagnostic services, enrichment programs, administrative services such as data processing and cooperative purchasing, and audio-visual aids. Better and more coordinated educational planning and improved training are expected as a result of the center. The service will be provided for seven counties. Forty-eight school districts will participate in the planned program.

Further information: T. S. Pickens, Superintendent, 101 N. 8th Street, Edinburg, Texas 78539. (512) DU 3-4951

ASSISTANCE IN DECISION MAKING THROUGH RETRIEVAL IN EDUCATION.

School District of the City of Lincoln, Nebraska, Lincoln

OE No. 67-3593 Operational Project

Amount sought - \$96,546

A computer and data processing center will be established for a five-county area to improve educational decision-making. The facilities will be used to collect, correlate, and analyze information from all schools in the area and make this information available to all teachers and administrators.

Further information: Mrs. Anne Campbell, Administrative Assistant to Government Services, P. O. Box 200, Lincoln, Nebraska 68501. (402) 475-1081

LORAIN COUNTY SUPPLEMENTARY EDUCATIONAL CENTER.

Lorain County Board of Education, Elyria

OE No. 67-3696 Planning Project Terminated

Amount sought - \$53,664

A service center, staffed with personnel qualified to provide educational, resource and consultant services to 15 schools in one county, will be planned by a committee representing all the schools. A model program will be designed, using modern instructional materials and equipment in science, data processing, and communication, to provide improved services, including diagnostic and remedial, to all children and teachers in the area.

Further information: Wayne A. Whyte, Lorain County Superintendent, 420 West Third Street, Elyria, Ohio 44035. (216) 322-4924

EDUCATIONAL AUTOMATION.

Concordia Parish School Board

OE No. 67-3765 Operational Project

Amount sought - \$98,530

A data-processing demonstration center will be established for the three-county area. The purposes of the center are to (1) record academic, vocational, and health records of the students; (2) score and record tests; and (3) conduct inservice training in the uses of data processing in guidance, counseling, and curriculum development. The information about each child will be put on tape. The tape will then be used for counseling, reporting to parents, registration, scheduling, etc. Three school districts will be served by the center.

Further information: J. O. Lancaster, Superintendent of Schools, 508 5th Street, Vidalia, Louisiana 71373. (318) 336-4226

OPERATIONAL LEARNING.

Desert Center Unified School District, Eagle Mountain

OE No. 67-4161 Operational Project

Amount sought - \$80,670

Games and simulations will be incorporated into the central curriculum to teach humanities in one unified school district of a geographically isolated area. Multi-media presentations and computer-aided scheduling will be employed. The games will be designed so that the participants will be required to make decisions as a central part of the learning process. It is hoped that the method will motivate students to study such related subjects as mathematics.

Further information: Otis Mallory, District Superintendent,
P. O. Box 475, Eagle Mountain, California 92241. (714) EX 2-4277

REGIONAL ENRICHMENT CENTER.

Kalamazoo Valley Intermediate School District, Kalamazoo

OE No. 67-4241 Operational Project

Amount sought - \$300,000

A regional center will be established to supplement the existing educational programs of a five-county region by providing a catalog of area cultural and educational resources and demonstrating their use; continuing inservice training for teachers; an instructional materials service; and by establishing an automatic data processing center. Counties served: Kalamazoo, St. Joseph, Van Buren, Berrien, Cass.

Further information: Albert L. Bradfield, Superintendent of Schools, Kalamazoo Valley Intermediate School District, 508 East Dutton Street, Kalamazoo, Michigan 49001. (616) 342-0254

IMPROVED EDUCATIONAL SERVICES AND PRACTICES THROUGH UTILIZATION OF ELECTRONIC RECORDS.

Dade County Board of Public Instruction, Miami

OE No. 67-4355 Operational Project

Amount sought - \$496,897

A multi-county attack is planned to remedy the lack of accurate, timely, and complete information on students and to make information available on educational advisement. These problems will be attacked by implementing improved educational services and practices, including the production of an electronic student information record with a uniform data coding system and effectively utilizing the student data by setting up an automatic referral system with analysis based on predetermined criteria. Four school districts will be served by the program.

Further information: Dr. Joe Hall, Superintendent of Schools,
1410 N. E. 2nd Avenue, Miami, Florida 33132. (305) 377-4311

PLANNING GRANT TO ESTABLISH AN EDUCATIONAL MEDIA CENTER.

Northeastern Instructional Materials Center, Scranton

OE No. 67-4386 Planning Project Terminated

Amount sought - \$19,127

An educational media and communication center will be planned for a five-county area of 51 school districts. It will be a center for materials and resources, curriculum and educational technology development, teacher recruitment and placement, specialists as resource persons for classroom presentations, psychological services, and computer and research services.

Further information: John Arcangelo, Education Program Specialist, 506 Spruce Street, Scranton, Pennsylvania 18503. (717) 346-7071

COMPUTER-BASED COURSE SELECTION PROGRAM.

Palo Alto Unified School District, Palo Alto

OE No. 67-4391 Operational Project Terminated

Amount sought - \$52,719

High school students numbering over 7,500 will select courses via an information system that will furnish requirements and specifications including college types, grades, vocational choices, and complete course descriptions. The information given to the students will allow them to make choices which can be electronically processed, permitting better and speedier scheduling.

Further information: Murray Tondow, Director, Educational Data Services, 25 Churchill Street, Palo Alto, California 94306. (415) 327-7100 Ext. 4261

INTEGRATED EDUCATIONAL INFORMATION SYSTEM.

Intermediate School District, County of Macomb, Mount Clemens

OE No. 67-4475 Operational Project

Amount sought - \$299,237

A centralized computer installation will provide 93 school districts with services in curriculum enrichment, financial management, student records, personnel records, and facilities records. Staff training will insure proper and complete utilization of the system.

Further information: Harold E. LeFeure, Superintendent, Intermediate School District, Fourth Floor, County Building, Mount Clemens, Michigan 48043. (313) 468-0971

M. G. STUDENT COMPUTER ORIENTED PROGRAM - EDUCATION (SCOPE).
Board of Education of the Youngstown City School District,
Youngstown

OE No. 67-4512(7) Mini-Grant Project
Amount sought - \$25,000

Plans will be made for the operation of an educational data processing center. A total educational information system supporting the instructional and management functions of 16 public and nonpublic school systems in Mahoning County will be developed. Counties served: Mahoning.

Further information: J. H. Wanamaker, Superintendent of Schools, Board of Education of the Youngstown City School District, 20 West Wood Street, Youngstown, Ohio 44503. (216) 743-1151

MG-EDUCATIONAL INFORMATION SYSTEM PILOT PROJECT.

School District No. 422, Cascade

OE No. 67-4568-7 Mini-Grant Project Terminated
Amount sought - \$25,000

A program will be undertaken to demonstrate the feasibility of a Statewide educational information system, to acquaint State educators with the potentials of data processing, and to develop guidelines for the changeover to a computer-based information system. Counties served: Valley

Further information: Jerry L. Evans, Superintendent of Schools, Box 291, Cascade, Idaho 93611. (208) 382-3511

FEASIBILITY STUDY OF INFORMATION RETRIEVAL SYSTEMS.

Decatur, Alabama

OE No. 67-04703(7)
Amount sought - \$25,000

Counties served: Morgan

Further information: H. R. Leeman, Superintendent, Decatur City Schools, 210 Wilson Street, N. E., Decatur, Alabama 35601.
(205) 353-6731

USE OF COMPUTERS FOR ADMINISTRATION AND GUIDANCE AND COUNSELING
FISCAL YEAR 1968

INTEREST PROFILE ANALYSIS CURRICULUM.

Widefield - Security School District No. 3, Security

OE No. 68-5168 Planning Project

Amount sought - \$97,740

An interest profile analysis curriculum, emphasizing the interest rather than the ability level of the student, will be designed to serve as the basis for an individualized instructional program for secondary schools. Teachers and department chairmen will attend institutes to study and validate proposed programs. Consideration will be given to the use of a computer in analyzing data related to student goals in each program area. Counties served: El Paso.

Further information: Donald Joiner, Administrative Assistant to the Superintendent, 701 Widefield Drive, Security, Colorado 80011. (303) 392-3481

PROJECT CONTEMPORARY COMPETITIVENESS.

Bridgewater Public School Department, Bridgewater

OE No. 68-5208 Operational Project

Amount sought - \$183,641

A supplementary education center, located at a local college, will serve advanced and gifted public school students in a summer program, provide teacher workshops in team teaching, develop an adult education program for institutional inmates and retired persons, and offer data processing services for school systems. Teaching interns from the college will serve in the schools. Counties served: Bristol, Plymouth.

Further information: Albert F. Hunt, Jr., Superintendent of Schools, Central Square, Bridgewater, Massachusetts 02324. (617) 697-6914

OTIS (OREGON TOTAL INFORMATION SYSTEM).

Board of Education for the Intermediate Education District,
Eugene

OE No. 68-5233 Operational Project

Amount sought - \$250,000

A comprehensive computer system will be developed to create a data bank which will include all areas of student, staff, and administrative information. A single programmed control system and telecommunications network will link participating schools in a large geographical area and make data readily available for research, review, and planning. Counties served: Coos, Deschutes, Lane, Multnomah, Umatilla.

Further information: Noble Wheeler, Chairman, Board of Education, 748 Pearl Street, Eugene, Oregon 97401. (503) 342-5576

GENERAL ADVANCEMENT PROGRAM (GAP).

New London Public Schools, New London
OE No. 68-5282 Planning Project

Amount sought - \$37,400

Ten school districts will cooperate in developing a program to identify and study students who are poorly motivated, lacking in achievement, and who have no vocational goals. Testing and interviewing procedures and a computer facility will be used to gather information on the nature and educability of these students.

Counties served: New London.

Further information: Joseph V. Medeiros, Superintendent of Schools, 134 Williams Street, New London, Connecticut 06320.
(203) 443-5357

COMPREHENSIVE PROGRAM FOR INNOVATION - PART II.

School District of Philadelphia, Philadelphia

OE No. 68-5387 Operational Project

Amount sought - \$1,056,404

An educational center will be established to provide educational consultation and research, instructional materials, and computer programming of educational data. Teachers, interns, and student teachers will be trained, and schools will be provided with findings and pertinent data. Students in all city schools and community members will be served. Counties served: Philadelphia.

Further information: Robert L. Poindexter, Acting Superintendent, Parkway at 21st Street, Philadelphia, Pennsylvania 19103. (215) 448-3671

COOPERATIVE COMMUNITY EDUCATIONAL RESOURCES CENTER.

Boulder Valley School District Region No. 2, Boulder

OE No. 68-5538 Operational Project

Amount sought - \$50,797

A computerized storage and retrieval system will be designed to provide teachers and students with abstracts of information on educational literature, instructional materials, resource people and places. A dissemination center will be staffed with professionals who will design and implement a plan for disseminating material. Personal interest and need profiles will be prepared so that users will receive only preferred information. Counties served: Boulder.

Further information: Richard M. Fawley, Director of Curriculum, Research, and Statistical Analysis, P. O. Box 186, Boulder, Colorado 80302. (303) 442-6931

PROJECT INFORM: A DISSEMINATION CENTER.

Charleston Community Unit School District No. 1, Charleston

OE No. 68-5546 Operational Project

Amount sought - \$195,493

An educational engineering center, serving the entire State, will provide the means for storage and dissemination of information related to educational planning and experiences, research and experimental projects, and field testing. This communications system will permit schools to receive up-to-date information for use in their curriculums and management and will serve as a prototype for other States planning information systems. Counties served: Statewide.

Further information: Paul Seitsinger, Superintendent of Schools, 1115 Monroe Street, Charleston, Illinois 61920. (217) 345-2106

QUICK-TIME EDUCATION INFORMATION RETRIEVAL IN WISCONSIN.

Joint School District No. 8, Madison

OE No. 68-5666 Operational Project

Amount sought - \$46,664

A Statewide information retrieval system, utilizing the Permuted Indexing System developed by IBM, will be designed to provide school people with cross-referenced print-outs of research and ESEA Title I and Title III project activities within the State. The indexing system, called KWIC (Key Work In Context), will produce information at three levels: title, subject, and author; one hundred work abstracts of selected articles; and guided indexing to article. Counties served: Statewide.

Further information: Robert D. Gilberts, Superintendent, Madison Public Schools, 545 West Dayton Street, Madison, Wisconsin 53703. (608) 256-1911

PLANNING A COMPUTER-ASSISTED COUNSELING CENTER.

Independent School District No. 30, Bartlesville

OE No. 68-5685 Planning Project

Amount sought - \$50,000

A center will be established to develop a comprehensive computer-assisted guidance and counseling program to serve students in grades 6-12 in a three-county area. A committee composed of representatives from State and local educational agencies will identify the variables common to decision-making processes and develop computer programs to aid the counselor in analyzing, retrieving, and summarizing the data. Counties served: Oklahoma, Tulsa, Washington.

Further information: Bill Crutcher, Business Manager, Administration Building, Seventh and Orage, Bartlesville, Oklahoma 74003. (918) 336-8211

INNOVATIVE IMPLEMENTATION OF GENERALIZED ACADEMIC SIMULATION PROGRAM (GASP).

School Committee, City of Boston, Boston
OE No. 68-5760 Planning Project

Amount sought - \$35,400

A new concept in computer programming will be introduced to plan the effective utilization of faculty and facilities in a proposed central high school. A research analyst and consultants will use educational data input to develop a strong education program. Computer techniques will be used for developing programmed instructional material for use in the curriculum of the new high school. Counties served: Suffolk.

Further information: William H. Ohrenberger, Superintendent of Boston Public Schools, 15 Beacon Street, Boston, Massachusetts 02108. (617) 227-5500

AUTOMATED EDUCATIONAL DATA SYSTEM.

Dougherty County Board of Education, Albany
OE No. 68-5795 Planning Project

Amount sought - \$59,647

Specialists and consultants will study methods for implementing an educational data processing center to gather, store, retrieve, analyze, and disseminate educational material as a means of improving the educational processes. Data processing systems in use at colleges and other educational agencies will be examined as a part of the study. Counties served: Dougherty.

Further information: J. J. Cordell, Superintendent of Education, 601 Flint Avenue, Albany, Georgia 31702. (912) 436-4843

CHILD DEVELOPMENT CENTER.

Reorganized District No. R-XI, Dexter
OE No. 68-5810 Operational Project

Amount sought - \$200,000

A center will be established to provide professional services for 58 school districts and to determine priorities for educational needs. A pilot program will acquaint the staff with local needs. Consultants, supervised teacher training, clinical facilities, and comprehensive computer services will be supplied. Reading specialists, social workers, school psychologists, speech therapists, and psychometrists will concern themselves with virtually all aspects of the growth and development of the individual child. The center will operate in a predominantly rural area and serve as a model for similar areas. Counties served: Bollinger, Butler, Cape Girardeau, Carter, Dunklin, Mississippi, New Madrid, Pemiscot, Ripley, Scott, Stoddard, Wayne.

Further information: Thurston Hill, Superintendent of Schools, P. O. Box 289, Dexter, Missouri 63841. (314) 624-2622, Ext. 2

EDUCATIONAL CIRCUMFERENTIAL INFORMATION SYSTEM (E. C. I. S.).

School District No. 422, Cascade

OE No. 68-6040 Operational Project

Amount sought - \$120,000

A statewide program will implement and utilize previously designed information systems to benefit all educational levels. Educational criteria in the areas of school finance, facilities, student accounting, staff accounting, and curriculums will be disseminated. Workshops will acquaint teachers with the capabilities of the computerized information system, and accumulated data in the memory bank will serve as a basis for projecting the future needs and plans of participating schools. On-the-job training in the computer field will be available to students, and a system of computer instruction by mail will be devised for secondary students in remote localities. Counties served: Statewide.

Further information: Jerry L. Evans, Superintendent of Schools, Cascade High School, Cascade, Idaho 83611. (208) 382-3511

PLANNING FOR CHILDREN WITH LEARNING DISABILITIES.

Calcasieu Parish School System, Lake Charles

OE No. 68-6042 Planning Project

Amount sought - \$44,638

A preliminary study will identify those children presently enrolled in local elementary and high schools who need special training because of learning disabilities. An advisory committee, composed of representatives from public and nonpublic schools and other agencies with a particular interest in the field of learning difficulties, will conduct a survey of literature concerned with the diagnosis and remediation of learning difficulties; will compile lists of operating programs for students with learning difficulties; and will visit model programs and report findings. Students requiring special training will be identified through school records, I.Q. scores, achievement tests, and teacher recommendations. Information will be analyzed through computerized data processing. Tentative categorization of major types of learning difficulties found in the local schools will be made. Consultant services will be secured for physical therapy, social work, psychiatry, neurology, ophthalmology, and pediatrics conferences and screening. This preliminary study should produce a workable plan to provide better educational services for these children. Counties served: Calcasieu.

Further information: C. W. Hanchey, Superintendent of Schools, 1724 Kirkman Street, Lake Charles, Louisiana 70601. (318) 433-6321

GREATER REGIONAL OPPORTUNITIES FOR WATERBURY.

Board of Education, Woodbury

OE No. 68-6107 Planning Project

Amount sought - \$50,000

Local business and industry will be encouraged to participate in solving a variety of educational problems through the establishment of a regional opportunities center. Analysis of information for more effective communication between educators, researchers, and computer personnel in charge of hardware and software programs is planned; and opportunities for employment in the area will be investigated. Attention will be given to curriculum development, use of technology and media, and possible use of television. Programs for students who are academically gifted will be studied, and the interdependence of schools of higher learning and industry will be considered. Counties served: Litchfield, New Haven.

Further information: Theodore H. Martland, Superintendent of Schools, School Street, Woodbury, Connecticut 06798. (203) 263-2819

SARASOTA'S EDUCATIONAL EXPLORATION DEVELOPMENT SCHOOL.

Sarasota County Board of Public Instruction, Sarasota

OE No. 68-6139 Operational Project

Amount sought - \$249,594

A centralized school will offer individualized, in-depth instruction to enable gifted children in grades 3-12 to advance at their own rates. Students will be selected and advanced to higher levels of learning exploration through interviews and psychological and academic tests. Inservice training will be provided for the teaching staff; and data processing, programmed learning equipment, and library materials will aid in each student's intellectual exploration. Counties served: Sarasota.

Further information: Herbert P. Field, Chairman, 2418 Hatton Street, Sarasota, Florida 33577. (813) 958-8831

DESIGNING LEARNER-CENTERED INSTRUCTIONAL SYSTEM.

Union Free School District No. 10, Mineola

OE No. 68-6141 Operational Project

Amount sought - \$60,000

Using the systems approach, this project will design, develop and implement a learner-centered instructional program in vocationally related mathematics. The system will require the specification of performance objectives, coupled with statements of minimum performance criteria, and the development of instructional strategies to achieve a program of individualized instruction for noncollege-bound students. Available teaching materials and resources will be analyzed to determine their appropriateness in relation to specific performance objectives. Participating students' test scores, record cards, and conference results will be coded for computer storage and retrieval. Counties served: Nassau.

Further information: Ben Wallace, Superintendent of Schools, Mineola Public Schools, 200 Emory Road, Mineola, New York 11501. (516) 747-6700

EDUCATIONAL AND CULTURAL RESOURCES PROGRAM.

Washington County Board of Education, Hagerstown

OE No. 68-6257 Operational Project

Amount sought - \$37,576

All existing county resource media will be cataloged, stored, and automatically retrieved upon request from cooperating public, nonpublic, and independent county schools with the implementation of an educational resources program. An investigation will be made of existing retrieval systems, and a plan will be devised for local use based on the investigative findings. Workshops, checklists, and meetings of school officials will furnish an inventory of existing educational materials that are on hand. A plan for the sequential development of an automated retrieval system will be devised after materials have been identified, catalogued, and cross-indexed. Modular development is planned to permit phased implementation. Counties served: Washington.

Further information: William M. Brish, Superintendent of Schools, Box 730, Commonwealth Avenue, Hagerstown, Maryland 21740. (301) 731-2700

STATEWIDE REGIONAL DATA PROCESSING PLANNING.

Albany-Schoharie-Schenectady, Albany

OE No. 68-6306 Planning Project

Amount sought - \$150,000

Systems analysis and design will be undertaken to develop a statewide educational data processing system, utilizing as fully as possible the capabilities of the electronic computer, to supply information to the State Education Agency, teachers, guidance personnel, school administrators, Board of Education members, business officials, and the general public. One or more consulting firms will perform parts of the three-phase program, consisting of analysis and design, subsystem programming, and refining and final checkouts. An evaluation and training center will be established in the school district of the State capital, with the expectation that this pilot program will then be expanded to the rest of the State. Both equipment and procedures will be evaluated at the center. The total system, consisting ultimately of nine regional centers and three larger evaluation and training centers, will seek to avoid costly duplication of data-processing efforts throughout the State. Counties served: Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Schoharie, Washington.

Further information: John H. Fink, District Superintendent of Schools, 381 Sandcreek Road, Albany, New York 12205. (518) 459-1414

INFORMATION RETRIEVAL AND DISSEMINATION CENTER.

Union Free School District No. 5 and Levittown Public Library,
Levittown

OE No. 68-6326 Operational Project

Amount sought - \$45,843

Rapid and efficient information retrieval and dissemination will be accomplished through cooperative efforts between the public library and the public and nonpublic schools serving 20,000 students in a suburban school district. A center will be established in a centrally located library that has a good basic collection of books and periodicals, as well as the capability of locating and reproducing multiple copies from the variety of available resource materials. Teacher and student requests will be processed, and daily deliveries will be made to schools. The center, which has space available for easy conversion to storage, will be staffed by library personnel and will be operational for many hours each day. School and library personnel will be instructed in procedures to make maximum use of facilities and materials. Counties served: Nassau.

Further information: Louis Blumberg, Superintendent, Union Free School District No. 5, North Village Green, Levittown, New York 11756. (516) 796-6800

CURRICULUM IMPROVEMENT THROUGH MODULAR SCHEDULING.

Roanoke County School Board, Salem

OE No. 68-6435 Operational Project

Amount sought - \$112,176

A flexible, modular curriculum will be established in a model school enrolling 1,350 students, grades 7-12. Curriculum improvement will be achieved through the addition of new courses and instructional innovations; instructional techniques such as team teaching, teacher aides, individualized instruction, and inservice teacher training; and better service to individual students to foster their self-reliance and meet their individual needs. An instructional materials center will be established to house library materials, multi-media aids, study carrels, learning laboratories, and areas for independent study and research. A central computer control will also be established to provide efficient administration of school resources. Counties served: Roanoke.

Further information: Arnold R. Burton, Superintendent of Schools, 526 College Avenue, Salem, Virginia 24153. (703) 389-7244

REGION IV EDUCATION SERVICE CENTER.

Educational Service Center, Region IV, Houston

OE No. 68-6643 Operational Project

Amount sought - \$85,000

A regional center will utilize cooperative planning to provide programs, activities, and services in instructional improvement, evaluation, and development of procedures and techniques for 56 school districts in seven counties. The center will also contribute to Statewide educational planning and will coordinate various locally supported components of its program, including media and computer services. Counties served: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Waller.

Further information: T. S. Hancock, Executive Director, 202 North Loop West, Houston, Texas 77018. (713) 869-7146

AUTOMATION FOR ISOLATED SCHOOLS.

Freemont County Vocational High School, Lander

OE No. 68-6687 Operational Project

Amount sought - \$7,743

A computer will be used to increase the efficiency of high school class scheduling and personnel services for 973 students. Teachers will be asked to develop time/class-size patterns for each of their subjects for processing into a master schedule, using as a basis the theory that different academic subjects require different degrees of attention. Thereafter, the computer will be used to generate a class schedule for each student, taking into account the amount of energy required by teacher and pupil to make a course successful. In addition, the computer will be used for student record and information storing and processing to permit rapid identification of problem areas to be dealt with in individual guidance consultation. Counties served: Fremont.

Further information: John W. Reng, Superintendent, Fremont County Vocational High School, 1000 Main Street, Lander, Wyoming 82520.
(307) 332-4711

CENTRAL CITIES PROGRAM.

Houston Independent School District, Houston

OE No. 68-6707 Operational Project

Amount sought - \$500,000

A program will be designed to help establish a positive self-image in each of the 5990 participants as a member of his own culture and community and in harmony with his heritage so that this self-image will be conducive to continued growth and fuller realization as an individual. There will be a community-based program including pre-school as well as adult education in each of five elementary school centers. A cooperative occupational counseling and vocational program will be offered in both elementary and secondary schools of the subsystem. This program will include on-the-job training and part-time employment of secondary school students in a full 12-month school program. An extensive health, physical fitness, and recreational program will be developed for grades K through 12. Existing educational television and computer facilities will be made available as needed. Counties served: Harris.

Further information: H. W. Elrod, Superintendent for Instruction and Administration, 1300 Capitol Avenue, Houston, Texas 77002.
(713) 234-9871