AN OCCUPATIONAL RESEARCH AND DEVELOPMENT UNIT WAS CREATED TO PROVIDE ASSISTANCE IN A STATEWIDE PROGRAM OF VOCATIONAL RESEARCH TO DEVELOP RESEARCH PERSONNEL, TO EVALUATE EXPERIMENTAL CURRICULUM AND INSTRUCTIONAL PROCEDURES, TO DEVELOP AN OVERVIEW OF SURVEY PROCEDURES RELATED TO OCCUPATIONAL OPPORTUNITIES AND TRAINING NEEDS, TO REFINE THE OPERATING PROCEDURES OF THE UNIT, AND TO PROVIDE INFORMATIONAL AND EVALUATING SERVICES. DURING THE 20-MONTH LIFE OF THE UNIT, RESEARCH PROJECTS WERE CONDUCTED IN THE AREAS OF CURRICULUM NEEDS, OCCUPATIONAL AND TRAINING NEEDS, EVALUATION OF EXPERIMENTAL AND PILOT PROGRAMS, AND JUNIOR COLLEGE FEASIBILITY STUDIES. EXPERIMENTAL AND DEMONSTRATION ACTIVITIES HAVE BEEN CONCENTRATED IN THE AREAS OF STUDENTS WITH SPECIAL NEEDS, NEW PATTERNS OF COOPERATIVE EDUCATION, CURRICULUM DESIGN, AND OCCUPATIONAL ORIENTATION. WORKSHOPS AND CONFERENCES WERE HELD TO IDENTIFY NEEDED AREAS OF ATTENTION AND TO IMPROVE THE RESEARCH COMPETENCIES OF LOCAL ADMINISTRATORS, TEACHERS, VOCATIONAL DIRECTORS, AND COUNSELORS. (GD)
ILLINOIS

Project No. OE 5-85-126

FINAL REPORT

This Project was funded under the provisions of Section 4(c) of the Vocational Education Act of 1963
This Project was funded under the provisions of Section 4(c) of the Vocational Education Act of 1963
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BACKGROUND

A Research and Statistical division of vocational education was established in Illinois over 20 years ago. The division was undermanned and spent its early years in nose counting and other social bookkeeping.

In 1963, the division contracted for two Technical education research projects. Working especially with Jerry Dobrovolny, Head of the General Engineering Department, University of Illinois, procedures were developed to fund these projects from State and/or George-Barden funds.

A research methodology committee met in January, 1963, to review proposals and evaluate methods. It was determined that advice was needed on more than methodology and an advisory committee for Vocational Education Research grew from this meagre effort. General guidelines of operation were delineated in January, 1964, with emphasis on research needs in various categories. Specific suggestions of the committee were four in number:

1. Establish a continuing Research Advisory Committee.

2. Expand contractual research.

3. Continue staff social bookkeeping but establish experimental, developmental, or pilot programs as an added facet.

4. Establish programs in fiscal 1964 for disadvantaged youth pursuant to mandates of the 1963 Act.
Using these guidelines in 1964, a section of the Illinois State Plan authorizing Research, Demonstration, and Experimental programs was written during the year. The continuing advice of this committee was solicited. Information was made available to possible originators of State funded research projects.

From this beginning, 1965 saw the approval of a number of research studies - some especially oriented to subject matter services and others to general problems of vocational education. Pilot projects were used to initiate wage earning home economics programs, related agricultural employment programs, interrelated cooperative education programs and vocational guidance programs.

The opportunity to establish a Research Coordinating Unit was offered to all states during 1965. Subsequently, the Illinois RCU was one of twenty-four approved prior to July 1, 1965.
EXPERIMENTAL, DEVELOPMENTAL, OR PILOT PROGRAM
Submitted to the U.S. Commissioner of Education
Under the Provisions of Section 4(e)
of the Vocational Education Act of 1963

Project Title: An Occupational Research and Development Unit for the State of Illinois

Applicant: State of Illinois Board of Vocational Education and Rehabilitation

Address: 405 Centennial Building, Springfield, Illinois 62706

Telephone Number: 217 - 525-4870
217 - 525-4620

Initiated by: F. L. Burgess, Director of the State Board of Vocational Education
405 Centennial Building, Springfield, Illinois 62706

Principal Investigator: Ray Page, Board of Education, Springfield

Federal Funds Requested: $100,000

Date Transmitted: June 1

Duration: 1 Year

Total Cost of the Project: $170,000

Total Federal Funds Requested: $100,000

Addition of the Unit will be the basic ingredient that can implement activities leading to the major objectives. The Unit, through use of an advisory group, will contact for prototype activities with research or educational institutions. Modified research or educational activities with existing procedure for the operation of the Unit will evolve during its establishment and controlled growth.

Refined procedure for the operations of the Unit will evolve during its establishment and controlled growth.

Procedure:

Total cost of the Project - $170,000

RCU

Total Federal Funds Requested: $100,000
A RATIONALE FOR RESEARCH IN VOCATIONAL EDUCATION

V. E. Burgener, Coordinator of Research,
Illinois Board of Vocational Education & Rehabilitation
and Director of the
Illinois Occupational Research and Development Coordinating Unit

Research is often defined in a very restrictive manner. The scholar is wont to conceive research as a "think tank" activity. Occasionally, it has been considered a "cloud nine," "blue sky," "dreaming," or "conceptualizing" process. If we substitute inquiry for the commonly used basic research, then we can use the term RESEARCH in the broad continuum context of its complete definition. (Figure 1)

Educational inquiry alone is not enough. Inquiry which cannot be or is not translated into educational practice is largely useless. For this reason the Occupational Research and Development Coordination Unit for vocational education in Illinois has considered research to be bounded by a macrocosmic parameter. Our spectrum of research and development covers those areas beginning in the deep purple of problem identification and continuing through related processes which eventually result in the bright red glow of program implementation.

Guba proposes a taxonomy of this procedure which he says "is related to and necessary for change in education." (Figure 2)

(1) Guba, Egon G., The Impending Research Explosion and Educational Practice, School of Education, The Ohio State University, Columbus, July 1965
His schema is very little different than the research and development sequence outlined by Brickell as I. - INQUIRING INTO THE WAY THINGS ARE; II. - CREATING A PROCEDURE FOR GETTING SOMETHING DONE; III. - DETERMINING WHAT A PROCEDURE WILL DO; IV. - MOVING A PROCEDURE INTO GENERAL USE which is "workable for the effective utilization of research." (Figure 3) Both writers point out that seldom is the same individual capable of performing more than one of the subfunctions in the research and development continuum. In fact, there is probably no better way to stifle the inquirer than to insist that he also become a disseminator. Similarly, an activity design specialist may have no capability to install or achieve adoption of his design. Lee and Brickell both suggest a varying responsibility for research functions between universities, state departments, and local schools. (Figure 4)

The State Research and Development Coordinating Units may provide their best coordinating service by finding and bringing these separate specialties together under one banner. As an administrative agency they should not (and we do not) attempt to become a research generating station. We can find competent inquirers to do empirical studies, to establish and test theories,

(2) Brickell, Henry M., The Role of Research and Development in Vocational Education, Manhasset Public Schools, Manhasset, New York, May 1965

(3) Lee, Allen, A Philosophy of Relationships for State Research and Development, University of California, Berkeley, 1966
to conceptualize, and to propose new truths. As an operating agency we should provide the linkage necessary to bring the results of such inquiry through the development process of innovative design into settings for laboratory and field testing from which the results can then be diffused by demonstrations and adaptations into patterns for general adoption. Regularization of an innovation by general adoption, Guba says, converts it into a noninnovation and releases the researcher to start on a new activity.

A Research Coordination Unit that does not concern itself with this total spectrum can be only partially successful. The coordination function must meld the thought of the theoritician to the procedure of the practitioner. Thus, may the theory-practice gap in education be narrowed. Only when progressive change becomes a continuum process can we make concerted effort to lessen the fifty year educational lag. Realizing that much change is long overdue in education generally and vocational education specifically, we prefer not to wait for the futuristic theoretical possibility of some new absolute truth which could be implemented, but instead attack the problem immediately at any point of the continuum. There is really no best place to start for an experiment may feed back to new and more pertinent basic problems for inquiry or the results of inquiry may feed directly into a diffusion pipeline.

Our Illinois Unit is intermittently accused and complimented for emphasizing action or applied research rather than basic research. Colorwise, we are partial to the red segment of the
spectrum. This is the area of shortest wave lengths, which may be an apt analogy. This could well indicate that results come faster because this is nearer to "where the action is." We readily accept the criticism or the compliment if basic research is defined as "studies in inquiry or examination" (Webster) and action research as "investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories in the light of new facts, or practical application of such new or revised theories." (do) We accept the pragmatic approach because of its immediate effect on product output.

Our usable product output seems greater at this end of the spectrum. When we make our commitment to ACTION RESEARCH, we are really cast into the same barnyard with the farmer who must determine a better method to spread accumulated manure before he is inundated with more of a newer and stronger product.

We believe we achieve this emphasis in several ways:

1. The primary responsibility for inquiry (basic research) lies with sophisticated researchers largely in institutions of higher education or in private research organizations. We support such research, when applicable to our specific problems of vocational education - sharing the costs of such study equally with the interested institutions. We commend this form of research to the many agencies which prefer to support such proposals.

2. We utilize staff to locate and then assist in the planning of experimental, field test, and demonstration
projects which will test and disseminate new approaches and changing theories.

3. We review and think about basic truths already researched and promulgated. Why should valid basic research collect dust only to have inquirers busily designing more to accompany it on library shelves, in ERIC, or other hallowed repositories? It bothers us to think that we may have done nothing to help implement basic, absolute, educational truths which have already been determined.

4. We realize that communication, dissemination, and demonstration are costly procedures involving many people. Field trial is not often considered a valid use of local tax money while getting an educational change into operation. We pay a higher proportion of the costs of operation of such programs than any other to encourage their establishment. By emphasizing educational research at the level where it has an immediate effect on our end product—the changed attitude and ability of a person, we can expect more visible and rapid evaluation of its results. Research supported by P.L.88-210 must have evaluative visibility by 1968.

The Illinois Research Coordinating Unit perceives the greatest immediate need for vocational education to be the implementation of measured change based on generalizations obtained from basic research already concluded or in process. Our major thrust is, therefore, pointed toward research processes such as curricular design, experimentation, diffusion and demonstration.
Figure 1

PHYLOGENETIC CLASSIFICATION

RESEARCH & DEVELOPMENT

Phyla

I. Inquiring Into the Way Things Are

II. Creating A Procedure For Getting Something Done

III. Determining What A Procedure Will Do

IV. Moving A Procedure Into General Use

Genus

RESEARCHER

Species

Inquirer

Designer

Experimenter

Disseminator
**Figure 2**

**A CLASSIFICATION SCHEMA OF PROCESSES RELATED TO AND NECESSARY FOR CHANGE IN EDUCATION**

<table>
<thead>
<tr>
<th>RESEARCH</th>
<th>DEVELOPMENT</th>
<th>DIFFUSION</th>
<th>ADOPTION</th>
<th>INSTALLATION</th>
<th>INSTITUTIONALIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVENTION</td>
<td>DESIGN</td>
<td>DISSEMINATION</td>
<td>DEMONSTRATION</td>
<td>TRIAL</td>
<td>INSTALLATION</td>
</tr>
<tr>
<td><strong>OBJECTIVE</strong></td>
<td>To advance knowledge</td>
<td>To formulate a new solution to an operating problem or to a class of operating problems, i.e., to innovate</td>
<td>To order and to systematize the components of the invented solution; to construct an innovation package for institutional use, i.e., to engineer</td>
<td>To afford an opportunity to examine and assess operating qualities of the invention, i.e., to inform</td>
<td>To build familiarity with the invention and provide a basis for assessing the quality, value, fit, and utility of the invention in a particular institution, i.e., to test</td>
</tr>
<tr>
<td><strong>CRITERIA</strong></td>
<td>Validity (internal and external)</td>
<td>Institutional Feasibility</td>
<td>Intelligibility</td>
<td>Credibility</td>
<td>Adaptability</td>
</tr>
<tr>
<td></td>
<td>Face Validity (appropriateness)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Estimated Viability</td>
<td>Generalizability</td>
<td>Fidelity</td>
<td>Convenience</td>
<td>Feasibility</td>
</tr>
<tr>
<td></td>
<td>Impact (relative contribution)</td>
<td>Pervasiveness</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Performance</td>
<td>Impact (extent to which it affects key targets)</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>RELATION TO CHANGE</strong></td>
<td>Provides basis for invention</td>
<td>Produces the invention</td>
<td>Engineers and packages the invention</td>
<td>Builds conviction about the invention</td>
<td>Tries out the invention in the context of a particular situation</td>
</tr>
<tr>
<td></td>
<td>Establishes the invention as a part of an ongoing program; converts it to a “non-innovation”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*From "Methodological Strategies for Educational Change" by Egon G. Guba, the Ohio State University, Columbus, 1965.

This classification schema was developed by Egon G. Guba and David L. Clark, School of Education, Ohio State University.*
Figure 3
A RESEARCH AND DEVELOPMENT SEQUENCE

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>INQUIRING INTO THE WAY THINGS ARE</td>
<td>CREATING A PROCEDURE FOR GETTING SOMETHING DONE</td>
<td>DETERMINING WHAT A PROCEDURE WILL DO</td>
<td>MOVING A PROCEDURE INTO GENERAL USE</td>
</tr>
<tr>
<td>Basic research</td>
<td>Development</td>
<td>Field testing</td>
<td>Dissemination</td>
</tr>
<tr>
<td>Theory building</td>
<td>Applied research</td>
<td>Innovation</td>
<td>Laboratory testing</td>
</tr>
<tr>
<td>Basic scientific investigation - content indifferent</td>
<td>Design</td>
<td>Evaluation</td>
<td>Demonstration</td>
</tr>
<tr>
<td>Basic scientific investigation - content relevant</td>
<td>Invention</td>
<td>Assessment</td>
<td>Teacher training</td>
</tr>
<tr>
<td>Empirical studies</td>
<td>Exploration</td>
<td>Formulation</td>
<td>Installation</td>
</tr>
<tr>
<td>Experimentation</td>
<td>Application</td>
<td>Curriculum development</td>
<td>Adoption</td>
</tr>
<tr>
<td>Surveys</td>
<td>Building pilot models</td>
<td>Making prototypes</td>
<td>Adaptation</td>
</tr>
<tr>
<td>Status studies</td>
<td>Research</td>
<td>Classroom experimentation</td>
<td>Implementation</td>
</tr>
<tr>
<td>Classroom trials</td>
<td>Field trials</td>
<td>Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manufacture</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Distribution</td>
<td></td>
</tr>
</tbody>
</table>

Suggested Managing Agency:

- UNIVERSITIES & RESEARCH INSTITUTES
- UNIVERSITIES, RESEARCH INSTITUTES, & STATE AGENCIES
- STATE AGENCIES
- INTERMEDIATE UNITS & LOCAL SCHOOL SYSTEMS

Henry M. Brickell
Manhasset, New York
May, 1965
A TAXONOMY OF ACTIVITIES INVOLVED IN EDUCATIONAL CHANGE IN PUBLIC SCHOOL PROGRAMS *

1. **Problem Definition** is an area for which the state department of education should fulfill the major role after thorough communication and consultation with local schools and higher education.

2. The major role for basic **Research** should continue with higher education; however, it is vital that local schools and the state department of education have minor involvement.

3. The state department of education should have the major leadership role for **Program Development**; however, it is essential to have significant involvement of colleges and universities and local schools.

4. In **Field Testing** the three agencies generally should have equal involvement.

5. In **Dissemination** the major leadership role should be carried by the state department of education; however, local schools and institutions of higher learning should fulfill supporting roles.

6. In **Implementation** the major roles should be with local schools and the state department of education because the Constitution gives responsibility to the state, which in turn delegates some. Higher education should play a minor role.

* CRP F-032, Allen Lee, Principal Investigator
ORGANIZATION AND OPERATION

Staff:

The Unit was reorganized and expanded from the Research and Statistics Service and specifically charged with the responsibility of conducting and supervising research and developmental activities. The reorganization of the Vocational and Technical Education Division resulted in the hiring of new staff members who report directly to the Chief of Research, Experimental and Demonstration Projects. The salaried personnel, under the supervision of the Chief of Research, Experimental and Demonstration (now changed to Coordinator of Research) include, Research and Training Supervisors, Program Supervisors, one Fiscal and Statistical Officer, and two Secretarial and Clerical Aides. The Coordinator of Research also serves as Director of the RCU. He receives authority from and reports directly to the Director of Vocational and Technical Education, who reports to the Board of Vocational Education and Rehabilitation through the Executive Officer.

The use of an Advisory Committee and Consultants has been an effective aid to the evaluation of and focus on problems.
Personnel

Chief of Research, Experimental and Demonstration Projects
Vernon E. Burgener (6/20/65)

Research and Training Supervisors
Roy E. McDermott (7/1/65)
Robert K. Gray (12/19/66)

Program Supervisors
Philip Baird (8/1/65)
George Fuka (8/16/65)
Bernard F. Quigley (10/24/66)

Fiscal and Statistical Officer
Frederick G. Ryley (8/15/65)

Secretarial and Clerical
Helen Vicars (6/20/65)
Marjorie Ann Newton (9/15/65)

Consultants
Samuel C. Bernstein, Illinois State Employment Service
Donald Brill, Great Cities Research Council
Dr. Robert A. Campbell, University of Illinois
Verne E. Crackel, Office of the Superintendent of Public Instruction
John Craig, Chicago Public Schools
Grace Duff, Alexander County, Illinois
Herbert Duffy, U. S. Office of Education
Harold Engelking, Southern Illinois University
Dr. Rupert Evans, University of Illinois
Dr. Ralph Gallington, Southern Illinois University
Dr. Sidney High, U. S. Office of Education
Dr. Eric Johnson, Illinois State University
Dr. M. Ray Karnes, University of Illinois
Dr. Richard Klahn, Sterling, Illinois
Dr. Allen Lee, University of California at Berkeley
Dr. Arthur Lehme, Chicago Public Schools
Dr. Ralph Lundgren, Office of the Superintendent of Public Instruction
Paul Marsh, Roxbury, Massachusetts
Robert Morgan, U. S. Office of Education
E. C. Nichols, Marengo, Illinois
George P. Outland, San Mateo, California
Ray Page, Superintendent of Public Instruction
Gail Richardson, Charleston, Illinois
Dr. William Rogge, Midwest Regional Research Laboratory
Dr. Wesley Schmidt, Northern Illinois University
Don Sommerfeld, Ann Arbor, Michigan
Dr. Grant Venn, U. S. Office of Education
Jack Watts, Sterling, Illinois
Planning Committee:

The RCU has been charged with the responsibility of coordinating research activities with the Office of the Superintendent of Public Instruction, the Illinois State Employment Service, as well as other public and private institutions and agencies within the state which are concerned with and conducting research pertinent to vocational and technical education.

An integral part of this research and development project was to establish an RCU Planning Committee with an advisory function to provide information and assistance to the director of the unit and to the State Board. Activities of this Planning Committee included a review of present research and experimental projects which were underway or proposed, a review of present procedures and policies for research and the development of recommendations for policy changes, a consideration of needs and priorities, and recommendations for better coordination among interested groups and agencies.

An invitation to serve on this committee was extended to fifteen distinguished and interested individuals throughout the State. All fifteen members accepted and made an important contribution to vocational education resulting in expanding opportunities for both youth and adults in the State of Illinois. The following tentative recommendations were developed after several sessions of this planning committee.
1. Broaden and improve the system of dissemination of vocational-technical information to the interested groups and the lay public.

2. Provide adequate funds to develop and field test new proposals and programs.

3. Provide additional funds to schools for the acquisition of instructional equipment beyond the $100 per item limit.

4. Establish a plan of financial assistance to schools to encourage the development of new, innovative, imaginative programs to meet the needs of all people.

5. Provide special financial support for schools and programs administered on an area basis (area schools and/or junior colleges) which operate on a basis beyond one school or one school district and offer a broad and diverse vocational-technical curriculum.

6. All areas of vocational-technical education are deserving of support and improvement in relation to the needs of people as outlined in the purposes of the Vocational Education Act of 1963, particularly the so-called disadvantaged youth and adults.

7. Provide seed money for the encouragement of innovation and updating of programs.

8. Prepare an annual report which includes an evaluation of current program and recommendations for improvement of on-going programs and for the development of new programs.
Illinois RCU Planning Committee members were:

L. Everett Belote, Illinois Junior College Board
Samuel C. Bernstein, Department of Labor, State of Illinois
John Cox, Illinois Agricultural Association
W. C. van Dyck, Caterpillar Tractor Company
Daniel J. Healy, Region 14 AFL-CIO
Rembrandt C. Hiller, Jr., The Sears Roebuck Foundation
Dr. M. Ray Karnes, University of Illinois
George R. Koons, State Board of Vocational Education & Rehabilitation
Dr. Arthur R. Lehne, Chicago Public Schools
Dr. Fred C. McDavid, Illinois Association School Administrators
Dr. John H. O'Neill, Office of the Superintendent of Public Instruction
Clem Phipps, Retail Merchant, Mattoon, Illinois
William E. Reynolds, Decatur Public Schools
Wesley Stephens, McKnight & McKnight Publishing Company
Wayne A. Stoneking, Illinois Education Association
During the course of this project, the Director of the RCU was elected charter president of the American Vocational Education Research Association. One program development coordinator left for a position with the Research Council of the Great Cities and another for a position with a special vocational education research project at the University of Illinois.
THE DEVELOPMENT OF RESEARCH & EXPERIMENTAL ACTIVITIES

4(a) Projects:

Funds have been available from State and/or Federal Vocational Education appropriations to encourage and support research. These funds, referred to as ancillary 4(a) funds, are administered under direction and control of the Illinois State Board of Vocational Education and Rehabilitation through the RCU. Vocational Education research has been encouraged in areas of job availability, skills and training, curriculum needs, evaluation of programs, follow-up studies, and training students with special needs.

Ancillary funds have provided a means to encourage the promotion and development of experimental and demonstration programs of vocational education. A majority of such programs were conceived and conducted in local public schools in order to field test new ideas, concepts, and approaches to vocational instruction for youth and adults commensurate with current and projected needs and opportunities. The Illinois RCU considered the major thrust of Action Research to be of prime importance, and the staff utilized every approach and offered every assistance toward this goal. By paying a higher proportion of the costs of operation of such programs than any other kind, the Illinois RCU encouraged the establishment of such experimental and demonstration programs.

By the end of fiscal 1965, some $105,000 of 4(a) monies along with approximately $34,000 of local monies were used for experimental and demonstration projects directly
funded by the Illinois RCU. In fiscal 1966, seventeen projects were funded. The budgets totaled approximately $1,200,000 with the State approving $900,000 through 4(a) funds. At the end of the first federal contract for the operation of the unit, one-half way through fiscal 1967, the Illinois RCU has already approved additional experimental and demonstration projects which will require some $800,000 of 4(a) monies for fiscal 1967.

Basic research, when applicable to special problems of vocational education in Illinois, has been approved on a shared cost basis with interested institutions. During the period of this contract, some $200,000 of 4(a) monies has been contracted.

Research projects, thus far, have been conducted in areas of curriculum needs, occupational and training needs, evaluation of experimental and pilot programs and portions of junior college feasibility studies. Effective information gleaned from research activities led to experimentation, evaluation and implementation of programs to improve the quantity and quality of vocational education. Experimental and demonstration activities have been concentrated in the areas of students with special needs, new patterns of cooperative education, curriculum design, and occupational orientation leading to better occupational selectivity.

A complete listing of funded 4(a) projects appears in the Appendix. They are divided into two categories to facilitate office record keeping, (basic) Research and Experimental and Demonstration projects.
Projects:

Under Section 4(c) of the Vocational Act of 1963, the U. S. Commissioner of Education was authorized to make grants to colleges and universities, state boards, local educational agencies, and other agencies and institutions within the state. Such grants were available to pay part of the cost of research, experimental, developmental, demonstration, or pilot programs in vocational education.

Illinois has been among the leaders in total 4(c) grants received under this law. The Illinois RCU has placed great emphasis on providing assistance to agencies and individuals to investigate and field test new ideas and techniques which are designed to broaden and enrich vocational education for youth and adults. Many of the 4(c) proposals approved for Illinois had RCU assistance.

The staff of the Illinois RCU attempted constantly to improve communications between the Commissioner of Education and the Bureau of Research on one hand and local vocational education personnel on the other. The availability of RCU personnel in the state has vastly improved such communications and provided the Bureau of Research with a direct line to the educational arena. This is evidenced by the broad spectrum of vocational education research in Illinois, especially at the local school level.
Inter-Agency Coordination:

Efforts have been made to correlate the research activities of several agencies. The RCU Director has served as a committee member of the University - State Agency Council. Title III and IV projects, ESEA have been observed to determine possible relationships with vocational education programs. A dialog has developed with the Director of Title IV projects.

A follow-up of MDTA enrollees in the Mattoon, Illinois area entitled "Report on the Manpower Development and Training Program, Mattoon, Illinois" was done by Frederick Ryley while a member of the RCU staff.

A cooperative relationship has been achieved with the Research Council of the Great Cities, the Central Educational Research Lab., Inc. (CERLI) and with several developmental centers established under Title III, ESEA.
Given the 16th day of October, A.D., 1966, in application to the award of the degree and title of

Reseacher Cum Ultimus

Martin Ebbi

RESEARCH COORDINATING UNIT FOR VOCATIONAL EDUCATION IN ILLINOIS

RCU Objective: The identification and upgrading of research personnel
PROFESSIONAL AND LAY INVOLVEMENT IN PLANNING FOR MEASURED CHANGE

The complex challenges and responsibilities of education today make it necessary to call upon all of our resources, especially human resources, to work toward the most expeditious course of action. Workshops and conferences were planned by the RCU to provide a comprehensive review of this vital phase of education.

"PLANNING FOR MEASURED CHANGE" - Workshop-Conference:

This workshop-conference was planned to appraise the present situation along with needs, and to structure operating policies with guidelines to promote, coordinate, and implement a research and development program for continuing administration within the State of Illinois. Such a program properly planned, structured, and implemented could provide the key to future expansion and a redirection of effort to maximize the benefits of the vocational and technical programs for the youth and adults in the State of Illinois.

The desired outcome of the workshop-conference was to identify needed areas of attention, suggest tentative directions for the future, propose working relationships among agencies and groups, and review present relationships and procedures.

Invitations were sent to a select group of outstanding leaders from business and industry, agriculture, labor organizations, governmental and educational agencies and institutions. The workshop conference was held on January 11-12, 1966, at the State House Inn, Springfield, Illinois, and was attended by a total of one hundred and sixty persons.
The number of conferees attending were identified in broad categories as representing:

- Business and Industry: 8
- Organized Labor: 2
- Associations: 16
- Higher Education: 50
- Secondary Education: 28
- State Department of Education: 41
- Other Governmental Agencies: 15

Perhaps there had never before been assembled in Illinois a more distinguished, sophisticated, knowledgeable, and comprehensive group to consider the critical issues and challenges facing vocational and technical education in Illinois.

The workshop-conference program featured presentations by outstanding educational leaders who have made major contributions in the field of research and development in vocational education, including:

- Grant Venn
  Bureau of Adult & Vocational Education
  U. S. Office of Education

- Rupert N. Evans, Dean
  College of Education
  University of Illinois

- Allen Lee, School of Education
  University of California, Berkeley
  Formerly Assistant Superintendent for Education Development in Vocational Education
  Oregon State Department of Education

Conference participants expressed great appreciation for the opportunity to hear three outstanding men present stimulating points of view. The marshalling of a great and comprehensive variety of persons, facts, and opinions from those within and outside the field of Vocational and Technical Education, was extremely beneficial. The frankness of the
ideas expressed by the participants issued a mandate to all concerned with education to "get on the ball" and get on with the vital task at hand.

The basic consensus from the group was that from this beginning must come a cooperative effort to implement changes, to "develop a plan of action," and to plan programs to meet the needs of the work force of future rather than of the past.

A complete report of this workshop conference titled "Planning for Measured Change" has been reprinted and is available upon request.

"RESEARCH ... AN INNOVATIVE TOOL FOR VOCATIONAL EDUCATORS" - Workshop:

A second workshop was conducted in October, 1966, to improve the research competency of local administrators, teachers, vocational directors and counselors. Over one hundred persons attended the three day conference pointed toward preparation of research and development proposals.

Specific workshop objectives were:

1. To bring about an awareness and understanding of research and development needs on the part of local education agency people.

2. To increase competence of local educational agency people in the area of action research.

3. To increase communication among those interested in educational research.

4. To promote pilot and demonstration projects that will meet the identified needs of Vocational Education, Research and Development.

5. To engage in long range planning for Research and Development activities in local communities.

-26-
In order to achieve the workshop objectives, existing research activities were reviewed, research needs were itemized, preparation techniques were outlined, priorities suggested, and sample proposals were reviewed.

Featured presentations were:

The Spectrum of Research and Development--V. E. Burgener Coordinator, Research

The Importance of Research to Vocational Education in Illinois --John A. Beaumont Director, Voc. Educ.

Strategies for Innovations in Vocational Education --Dr. Eric Johnson Vice Pres., I.S.U.

Proposal Preparation and Techniques in Writing --Don Sommerfeld Research Fellow

Priorities for Vocational Education Research --Dr. Sidney High Asst. to Director, DAVR

The program included individual presentations, symposium panels, video tape presentations, group work sessions, and a panel review session.

Area Research Review Conferences:

As a part of the reorganization of the State Office of Vocational and Technical Education in Illinois an internal committee to advise and work with the RCU was established. The ten member committee represented each unit within the division. It was considered important that this committee become cognitive of the plans, activities, and results of each research project.

In order to establish a means of direct communication and to provide a setting for an exchange of ideas and information, a series of four area conferences were held. The four
meetings were held in November at Chicago, Urbana, Carbondale, and Springfield.

A representative of each 4(a) supported project attended the meeting in his area of the State and explained to the committee how his project was developed, operated, and what it had accomplished in terms of the project's objectives.

The Research Review Conferences provided a setting for sharing information relative to ongoing projects and an opportunity to better articulate the research effort with the State Office committee through direct personal contact.

Career Development Education Conference:


The cooperative three day conference was conducted for the purpose of developing educational specifications for a Career Development Campus as a part of the Chicago School System. The meeting was comprised of representatives from the administrative staff of the Chicago Public Schools, the Division of Vocational and Technical Education of the State Board and noted consultants.

Principal participants included John A. Beaumont, Director, State Board of Vocational Education; Dr. Arthur Lehne, Assistant Superintendent, Chicago Schools; George F. Outland, Director, The Know and Care Center; Dr. Paul Marsh, Research Associate, MIT; and Don Sommerfeld, Research Fellow.
Staff members from the State Board of Vocational Education and Rehabilitation also participated in the conference.
TABLE 18—NAME, TOTAL REIMBURSEMENT, AND ENROLLMENTS IN SCHOOLS USING FEDERAL AND STATE FUNDS FOR HEALTH OCCUPATION PROGRAMS, 1984-1985

<table>
<thead>
<tr>
<th>Name of School</th>
<th>Total Reimbursement</th>
<th>Secondary</th>
<th>Post Secondary</th>
<th>Preparatory</th>
<th>Supplementary</th>
<th>Total Enrollments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td>2,004,160.00</td>
<td>15</td>
<td>20</td>
<td>1,320</td>
<td>95</td>
<td>1,484</td>
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<tr>
<td>Alton</td>
<td>1,167,070.00</td>
<td>11</td>
<td>16</td>
<td>1,180</td>
<td>10</td>
<td>1,380</td>
</tr>
<tr>
<td>Aurora-East</td>
<td>849,160.00</td>
<td>11</td>
<td>16</td>
<td>90</td>
<td>10</td>
<td>1,340</td>
</tr>
<tr>
<td>Bloomington</td>
<td>615,330.00</td>
<td>11</td>
<td>16</td>
<td>250</td>
<td>10</td>
<td>640</td>
</tr>
<tr>
<td>Chicago-East</td>
<td>6,978.00</td>
<td>11</td>
<td>16</td>
<td>250</td>
<td>10</td>
<td>640</td>
</tr>
<tr>
<td>Chicago-West</td>
<td>8,900.00</td>
<td>11</td>
<td>16</td>
<td>250</td>
<td>10</td>
<td>640</td>
</tr>
<tr>
<td>Edwardsville</td>
<td>8,000.00</td>
<td>11</td>
<td>16</td>
<td>250</td>
<td>10</td>
<td>640</td>
</tr>
<tr>
<td>East St. Louis</td>
<td>24,987.70</td>
<td>11</td>
<td>16</td>
<td>250</td>
<td>10</td>
<td>640</td>
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<tr>
<td>Elgin</td>
<td>25,846.00</td>
<td>11</td>
<td>16</td>
<td>250</td>
<td>10</td>
<td>640</td>
</tr>
</tbody>
</table>

RCU Objective: A macrocosmic concept of survey procedures relating to vocational and technical education and training needs.
Numerous state, federal, and local agencies publish a proliferation of data and reports relating to vocational and technical education. Similarly, much useful information is generated by various private organizations which have an interest in occupational education. The very abundance of information available, both in-state and out, make it difficult, if not impractical, for the researcher or planner to identify and obtain in a timely manner information which may have a significant bearing on his work.

A major function of the Illinois RCU was the initiation of a survey to seek out and bring together existing information helpful to the planning and development of vocational and technical education within the state. Corplan Associates, an affiliate of the Illinois Institute of Technology, was subcontracted to conduct the survey.

In addition to identifying information that could be helpful in planning and developing vocational and technical education in Illinois two sub-objectives of the study were determined: (1) the identification of present and emerging occupations in Illinois for which people should be trained and (2) development of recommendations on how existing information gaps in the fund of available information could be eliminated or minimized through subsequent research.

The objectives of the survey were accomplished through a four phase program.

During Phase One the subcontractor's designated
study team met with representatives of the State Board of Vocational and Technical Education in Illinois. After the orientation, the study team conducted a literature search on publications having a notable bearing on Vocational and Technical Education.

During Phase Two the study team interviewed people who were involved in vocational and technical education activities in Illinois. Representatives of industry, government and education were contacted to obtain their thoughts on how activities could best be developed to meet the needs of the future.

The material and information gathered during the first two phases was analyzed during Phase Three. Areas were identified where further research was needed to insure an effective future Vocational Technical Program. A series of research projects were outlined and priorities assigned.

The final phase of the program resulted in preparation of a final report describing the study teams activities during the contract period, persons and organizations contacted, report conclusions, and the information gaps which were discovered. In addition, a comprehensive bibliography listing publications, published and unpublished research literature, and other written materials which have a notable bearing on vocational and technical was prepared and submitted.
**Information System and Records**

**RCU Objective:** A consideration of the advisability of providing informational and evaluate services for the State Board and other state agencies.

**Table:**

<table>
<thead>
<tr>
<th>Program and Type of Expenditure</th>
<th>Local Expenditure for Fiscal Year</th>
<th>Approved for Reimbursement</th>
<th>Reimbursement Rate %</th>
<th>Amount Reimbursed</th>
<th>Estimated Expenditure for Next Fiscal Year</th>
</tr>
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<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td></td>
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<tr>
<td>- Decoy Salaries</td>
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<tr>
<td>- Decoy Travel-Instr.</td>
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<tr>
<td>- Adult Salaries-Supp.</td>
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<tr>
<td>- Adult Travel-Instr.</td>
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<td><strong>Total</strong></td>
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<td><strong>Distributive Edc.</strong></td>
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<td>- Decoy Salaries-Prep.</td>
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<tr>
<td>- Decoy Travel-Instr.</td>
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<td>- Adult Salaries-Supp.</td>
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<td><strong>Total</strong></td>
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<td><strong>Office Education</strong></td>
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<td>- Decoy Salaries-Prep.</td>
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<td>- Decoy Travel-Instr.</td>
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<td>- Adult Salaries-Supp.</td>
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<tr>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Trade &amp; Industry</strong></td>
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<tr>
<td>- Decoy Salaries-Prep.</td>
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<td>- Decoy Travel-Instr.</td>
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<td>- Adult Salaries-Supp.</td>
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<tr>
<td><strong>Total</strong></td>
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</table>
Funds were made available from the RCU budget for Data Processing innovation. During the spring of 1966, the RCU staff was instrumental in converting the annual Illinois Vocational and Technical reimbursement process from a manual system to a punched card unit record system. Basic units of financial data were determined, placed on punched cards and all of the various Federal, state, and local reimbursement reports for fiscal year 1966 were generated from the cards.

The annual statewide follow-up survey of vocational-technical graduates conducted in the fall of 1967 was converted to a semi-automated procedure. Print-outs on program, attendance center, and county bases were secured and is a by-product of the new follow-up system.

It is anticipated that this initial entry into the electronic data processing field will be followed up by further conversion of our various state level manual reporting procedures to more realistic, modern automated systems. It is hoped that the initial data processing work sponsored by the Illinois RCU will be the nucleus for an eventual complete computer oriented system. Such a system would center around creation of a state level vocational education data bank containing four areas of basic and integrated types of data: pupil, teacher, financial, and facilities. This data bank properly created and managed could be a valuable research tool providing accurate and timely information for analysis as well as being the source for generation of all Federal, state and local reports.
Illinois Vocational Progress

The National Information Retrieval and Dissemination System

For Vocational and Technical Education

RCU Objective: Assistance and support for increased and improved
DISSEMINATION OF RESULTS

Any great degree of measured change in vocational education is unlikely until a system of dissemination of results is developed. Action research generates visible results for further demonstration or replication.

Without information dissemination, needless duplication of inquiry and experimentation occurs. One of the earliest RCU efforts was the publication of Vol. I., No. 1, RCU Newsbriefs which summarized seven current projects. We have had regular access to Illinois Vocational Progress with detailed stories of three projects contained in them. Illinois Vocational Newsletter has reported about the RCU and its work in every issue (four per year).

Summaries of eleven projects were abstracted and distributed throughout the state. Lists of approved projects are periodically updated and distributed. Information concerning 4(c) projects is made available when obtainable from the Bureau of Research.

The following publications have been printed and distributed by or through the Illinois RCU.

A Challenge to Vocational Education in Illinois 7500
Research and Development Services-Key to Tomorrow 2000
Planning for Measured Change 450
RCU Newsbriefs 1750
The Spectrum of Research and Development 400
How to Write a Project Proposal

The Corplan Bibliography of Vocational and Technical Materials

The Corplan Report on the Status of Vocational and Technical Education in Illinois

Approved Research and Experimental Projects

Interim and/or Final Reports on 4(a) Funded Projects (26 separate reports)

With the advent of ERIC, the Illinois RCU obtained a reader-printer and copier to distribute printouts or copies of usable material when it is listed in Research in Education. We are waiting patiently for the Vocational and Technical Education satellite at Ohio State University to become operational. We obtained the two-month collection as listed in the index and the Higher Education Collection to start our micro-fiche library.

-37-
Title: Continuation of the Occupational Research and Development Unit for the State of Illinois

Cooperating Agency: The State of Illinois Board of Vocational and Rehabilitation Education 405 Centennial Building, Springfield Phone: 217-525-1070

Initiator: John A. Kuehn, Director State Board of Vocational Education 405 Centennial Building, Springfield

Principal Investigator: W. H. Burgar, Chief of Research State Board of Vocational Education

Proposed for research and/or related activities.

Illinois Research Coordinating Unit Extension

Submitted to the U.S. Commissioner of Education for support through authorization of the Bureau of Research

Abstract

Activities and experiences of the past year now make it possible to establish priorities and devise methods calculated to suggest possible solutions and develop a sound operation for continued service to vocational and technical education.

Improvements in unit structure, newly defined qualifications and functions of state members, and revised operational procedures will provide effective unit activities and achievement.

Total Federal Funds Requested: $103,662

Beginning December 1, 1956 Ending June 30, 1957
TOWARD THE FUTURE

Summary:

The RCU has placed major emphasis upon the establishment of a variety of instructional (experimental) programs for the purpose of developing and field testing innovative procedures and methods which, hopefully, after adaptation will lead to new programs in the vocational education continuum.

Illinois has become widely recognized for generating an unusually large number of experimental programs in local schools. This has been encouraged and made possible only by a relaxation of traditional practices. Typical reaction indicates, "Contact with the Unit has provided us our first opportunity to seek realistic solutions to problems and serve needs rather than to comply with regulations and established procedures." The opportunity for decision making and the speed of processing requests has helped to improve services and develop good rapport with local school personnel.

The RCU has further provided a discernible focal point and clearing house for vocational education research in the State of Illinois. There has been a stimulating and generating influence on research oriented activities in both local school districts and institutions of higher education. Funding with in-state ancillary (4-a) and USOE (4-c) monies has provided the means for both basic and applied investigation. Through the RCU, the state department of vocational education is now recognized with a more sophisticated role in the broad context of educational innovation in the state.

An upgrading of educational leadership has been actively pursued by encouraging new practices, improving
traditional practices, and providing a setting for the application of initiative and imagination. Working relationships with university personnel are emerging in a manner more broadly conceived than the traditional teacher-trainer-state department concept. An improved articulation with OSPI (Office of the Superintendent of Public Instruction) staff is becoming more evident. A close working relationship is developing with business, labor, industry, secondary and higher education through the activity of the RCU Planning Committee. Contacts by the Unit with business and industrial associations have made possible a more meaningful dialogue relative to training needs and services available from vocational education.

Perhaps the most gratifying result of the efforts of the RCU is the high degree of respect and appreciation expressed by local school administrators for joining with them in the development of new and different programs geared to the specific needs of students with socio-economic handicaps.

RCU in the Future:

Experience with this project led to the expression of added needs in the proposal for continuance of the RCU.

An improved dissemination service is a necessary adjunct to a RCU dedicated to measured change. A staff member will be assigned responsibility for information dissemination and will be expected to abstract, review, and coordinate existant systems of information accumulation and diffusion. The RCU is expected to become a vital communications link between the ERIC system and local schools. It is already
being used as the statewide contact for accumulation of materials. A distribution system to make collected materials available is the next logical step.

The coordination of research efforts between a myriad of agencies involved with educational research is a real problem. This may best be started by adding a staff member with a responsibility for inter-organizational research coordination. A full-time effort will be needed to correlate and unify the multiplicity of programs already in operation.

Reorganization of the staff of the Vocational and Technical Education Division of the Illinois Board of Vocational Education and Rehabilitation has emphasized the need for intrastaff information and working relationships. The close relationship of Research and Development to efficient planning makes it imperative to work closely with the Program Planning Unit. The Research Coordinating Unit, as one of five major organizational sectors reporting directly to the State Director of Vocational Education constantly strives to discern means by which experiments, field tests and demonstrations can be accepted by the Program Implementation Unit. It works cooperatively with a Program Services and an Interagency Unit (basically MDTA) in supporting and improving all continuing programs of vocational education.

The research and development process as envisioned by the Illinois RCU is basic to the continuum for educational change. Effective planning, implementation, and regularization of an exemplary program of vocational education can result from its findings.
APPENDIX

Illinois RCU Ancillary Research 4(a)
Approved and Continuing Research Projects 1966-67

Approved Research Projects 1965-66

Illinois RCU Ancillary Research 4(a)
Approved Experimental Projects 1966-67

Approved Experimental Projects 1965-66

Illinois 4(c) Projects Approved and Funded (July 1, 1965 - June 30, 1966)

Illinois 4(c) Projects Approved and Funded (July 1 - November 30, 1965)

Illinois 4(c) Projects Approved and Funded through June 30, 1965
01-C7  LAKE COUNTY TECH. NEED STUDY
        J. S. Dobrovolny - University of Illinois  $ 2,000.00

06-C7  IDENTIFICATION AND FOLLOW-UP OF SPECIAL STUDENTS OF
        DISTRICT #5, ALEXANDER COUNTY
        Dr. Ralph O. Gallington - Southern Illinois University  17,761.50

08-C7  DEVELOPMENT OF WORLD OF WORK INSTRUCTIONAL PROGRAMS
        Dr. J. R. Warmbrod - University of Illinois  21,930.93

09-B6  EVALUATION & REPORT ON PILOT SUPERVISED JOB TRAINING PROGRAMS
        Dr. Ralph O. Gallington - Southern Illinois University  3,874.61

16-B7  OCCUPATIONAL INFORMATION & DIAGNOSTIC CENTER FOR YOUTH & ADULTS
        Dr. William P. Treloar - Elmhurst  6,745.00

17-B7  EVALUATION OF ILLINOIS POST-HIGH SCHOOL EDUCATIONAL PROGRAMS
        IN AGRICULTURE
        Dr. Eugene S. Wood - Southern Illinois University  16,705.00

18-A6  A STUDY OF THE DEVELOPMENTS, TRENDS, AND CURRENT STATUS OF
        PRACTICAL NURSING IN ILLINOIS
        Dr. Robert M. Tomlinson - University of Illinois  7,871.00

19-A6  A FEASIBILITY STUDY OF JUNIOR COLLEGE NEEDS IN MCLEAN COUNTY
        AND ADJACENT AREAS
        Ralph Arends, Superintendent - McLean County Schools  5,150.00

20-A6  FOLLOW-UP OF FULTON COUNTY GRADUATES OF SELECTED CLASSES TO
        DETERMINE IMPLICATIONS FOR VOCATIONAL GUIDANCE AND BUSINESS
        AND OFFICE EDUCATION
        Lewis Belville - Lewistown High School  1,672.00

22-A7  SUMMER OCCUPATIONAL CURRICULUM PLANNING WORKSHOP
        Thomas C. Bryan, Prin., Woodland H. S., Streator  3,150.00

23-A7  DIFFERENTIAL COSTS OF CURRICULA IN COMPREHENSIVE JR. COLLEGES
        Dr. Ernest F. Anderson - University of Illinois  9,030.00

24-A7  AN OVERVIEW AND ANALYSIS OF FACTORS CONTRIBUTING TO PRESENT
        AND FUTURE HEALTH MANPOWER NEEDS
        Joseph Rhea - Health Careers Council of Illinois  7,300.00

25-A7  DEVELOPMENT OF CURRICULUM GUIDES FOR INTEGRATED PROGRAM OF HOME
        ECONOMICS AT THE SECONDARY LEVEL: HOMEMAKING & FAMILY LIFE EDU-
        CATION, EMPLOYMENT EDUCATION, & PREPROFESSIONAL EDUCATION ASPECTS
        Dr. Elizabeth Simpson - University of Illinois  15,139.00

26-A7  DEVELOPMENT OF THE PUBLIC SERVICE PROGRAM FOR CAREERS IN THE
        PUBLIC AGENCIES AT ALL LEVELS OF GOVERNMENT
        Dr. John F. Grede - Chicago City College  6,300.00
A FEASIBILITY STUDY TO DETERMINE THE NEED AND JUSTIFICATION FOR ESTABLISHING AN AREA VOCATIONAL HIGH SCHOOL IN KANE COUNTY
R. B. Mades - Superintendent, Kane County Schools

PUBLIC INFORMATION TO ASSIST IN RECRUITMENT FOR OCCUPATIONAL PROGRAMS.
Dr. John F. Grede - Chicago City College

BLACK HAWK COLLEGE OCCUPATIONAL SURVEY
Dr. Alban E. Reid - Black Hawk College

$ 3,000.00

9,991.00

12,967.00
# APPROVED RESEARCH PROJECTS

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<thead>
<tr>
<th>Title, Investigator</th>
<th>Descriptive Objective</th>
<th>1965</th>
<th>1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINEERING TECHNICIAN NEED STUDY - Lake County Christy Murphy - Univ. of Illinois</td>
<td>A continued study of technician needs, basic economic factors, and educational implications in Lake County, Illinois.</td>
<td>$24,663.00</td>
<td>$ 7,318.00</td>
</tr>
<tr>
<td>CURRICULUM DEVELOPMENT IN ENGINEERING TECHNOLOGY Jerry S. Dobrovolny - Univ. of Illinois</td>
<td>A continued study to develop, revise, and implement a two-year, six quarter Engineering Technology program.</td>
<td>20,524.98</td>
<td>34,525.00</td>
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<tr>
<td>EVALUATION OF PILOT PROGRAMS IN AGRICULTURAL EDUCATION Lloyd J. Phipps - Univ. of Illinois</td>
<td>Continued research and evaluation of pilot programs to determine objective and subjective results and make recommendations to other schools.</td>
<td>8,685.46</td>
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<tr>
<td>EFFICACY OF AUTOMATED INSTRUCTION IN TEACHER TRAINING William Schill - Univ. of Illinois</td>
<td>A study to evaluate the use of teaching machines in teacher training and an evaluation of results.</td>
<td>7,188.40</td>
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<td>FOLLOW-UP OF COLLINSVILLE HIGH SCHOOL GRADUATES Edmund Phelps - Collinsville H. S.</td>
<td>A study to see if the vocational program meets the occupational needs of Collinsville graduates.</td>
<td>1,479.32</td>
<td>590.90</td>
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<tr>
<td>IDENTIFICATION AND FOLLOW-UP OF SPECIAL STUDENTS OF DISTRICT #5, ALEXANDER CO., ILL. Ralph O. Gallington - Southern Ill. Univ.</td>
<td>A study to determine if certain hypothetical remedial practices in vocational education retain potential high school drop-outs.</td>
<td>Extended</td>
<td></td>
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<tr>
<td>SCHOOL SURVEY OF CHAMPAIGN, FORD, DOUGLAS, AND PIATT COUNTIES FOR A COMPREHENSIVE JUNIOR COLLEGE E. M. Harshbarger, Supt., Champaign County Schools</td>
<td>A survey to evaluate current programs and projected needs in vocational areas in the counties involved.</td>
<td>23,000.00</td>
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<tr>
<td>DEVELOPMENT OF WORLD OF WORK INSTRUCTIONAL PROGRAMS A. H. Krebs - Univ. of Illinois</td>
<td>A study occupational knowledge of youth, the effect of occupational instructional programs, and an evaluation of a pilot instructional center.</td>
<td>1,947.00</td>
<td>16,985.74</td>
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</table>
EVALUATION AND REPORT ON PILOT SUPERVISED JOB TRAINING PROGRAMS
Ralph O. Gallington - Southern Ill. Univ.

EVALUATION OF EAST AURORA EXPERIMENTAL PROJECT FOR ACADEMICALLY HANDICAPPED
Norman Green, Supt.
East Aurora, Ill.

THORNTON FRACTIONAL DISTRICT #215 WORK EXPERIENCE RESEARCH PROJECT
Walter Horvatich - Calumet City

VOCATIONAL AND TECHNICAL EDUCATION CURRICULA NEEDS FOR THE PROPOSED MACON CO. JR. COLLEGE
William Woodward, Supt.
Macon County

EMPLOYMENT OPPORTUNITIES AND TRAINING NEEDS OF A FOUR COUNTY AREA
Wilma Hunter - Southeastern Ill. Jr. College, Harrisburg

DEMONSTRATION PROJECT ON OCCUPATIONAL INFORMATION IN SELECTED WORK AREAS IN METROPOLITAN CHICAGO FOR USE IN GUIDANCE AND COUNSELING
Blanch Paulson - Chicago Public Schools

A study to evaluate objectives and goals of the Job Training Centers at Robinson, Des Plaines, Park Ridge, and the Drake Vocational Guidance and Education Center, Chicago and to make summaries, conclusions, and recommendations. Extended 2,962.68 4,481.82

An evaluation of the experimental program utilizing remedial teaching in a special learning center, employment, and special guidance services. 600.00

A study of occupational opportunities and student, parent, faculty, and employer needs as a guide for school program modifications for improved vocational preparation. 1,472.48

A survey to determine vocational and technical education needs for the proposed Macon Co. and surrounding area Jr. College. 7,200.00

A survey to obtain knowledge of employment opportunities and training needs of a four county area around Harrisburg, Illinois. 1,400.00

A project to update and coordinate available information about careers, to stimulate industrial cooperation, and to develop materials for group guidance and counselor in-service training. 7,402.00
A FEASIBILITY STUDY OF JUNIOR COLLEGE NEEDS IN DeKalb County and Neighboring Areas

D. E. Stitzel, Co. Supt.
DeKalb County, Illinois

$8,600.00

KANKAKEE AREA JUNIOR COLLEGE FEASIBILITY STUDY

Ruel Hall, Co. Supt.
Kankakee Co., Ill.

$18,500.00

OCCUPATIONAL INFORMATION AND DIAGNOSTIC CENTER FOR YOUTH AND ADULTS

Dr. William P. Trelor, Director, Continuing Ed. Program
Dist. 88, Elmhurst, Ill.

$6,745.00

EVALUATION OF ILLINOIS POST-HIGH SCHOOL EDUCATIONAL PROGRAMS IN AG.

Dr. Eugene S. Wood
Southern Illinois Univ.

$24,655.00

A STUDY OF THE DEVELOPMENTS, TRENDS, AND CURRENT STATUS OF PRACTICAL NURSING IN ILL.

Dr. Robert M. Tomlinson
University of Illinois

$7,871.00

A FEASIBILITY STUDY OF JUNIOR COLLEGE NEEDS IN McLean COUNTY AND ADJACENT AREAS

Ralph Arends, Supt.
McLean County Schools

$7,400.00
Illinois RCU
Ancillary Research 4(a)
Approved EXPERIMENTAL Projects
1966-67

<table>
<thead>
<tr>
<th>School</th>
<th>Descriptive Objective</th>
<th>Budget 1966</th>
<th>Budget 1967</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alton Sr. H.S.</td>
<td>A continuing full day core program for slow learners under one teacher-coordinator including common learnings instruction, and job experience in service type occupations.</td>
<td>$ 8,300</td>
<td>$ 9,016</td>
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<tr>
<td>C. R. Wright</td>
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<tr>
<td>George Abner</td>
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<tr>
<td>Cairo Adult &amp; Vocational School</td>
<td>An adult guidance program for screening, testing, and counseling vocational school entrants combined with adult cooperative supervised work experience.</td>
<td>$ 4,126</td>
<td>$ 20,565</td>
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<td>(Mrs.) Grace Duff</td>
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<tr>
<td>Carbondale H.S.</td>
<td>Personal counseling by a vocationally oriented social worker to assist and advise vocational students through home visits, parental and community contacts, field trips, intra and extra class activities with the aim of improving school and program completions.</td>
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<td>$ 10,645</td>
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<tr>
<td>George Kuhn</td>
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<tr>
<td>Arthur A. Black</td>
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<td></td>
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</tr>
<tr>
<td>00068-A7</td>
<td></td>
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<tr>
<td>Carl Sandburg H.S.</td>
<td>A visual communication center involving business education, home economics, and industrial education in the broad context of the graphic arts for slow learners and potential dropouts.</td>
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<td>$ 16,535</td>
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<tr>
<td>William Fisher</td>
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<tr>
<td>Patricia Cote</td>
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<td>00066-A7</td>
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<tr>
<td>Champaign H.S.</td>
<td>An over-all program combining various vocational subject areas using a team teaching approach to present commonalities of occupational information pertinent to securing and holding employment.</td>
<td>$ 42,711</td>
<td>$ 58,182</td>
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<tr>
<td>Dr. E. H. Mellon</td>
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<tr>
<td>Duane Patton</td>
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<tr>
<td>00059-B7</td>
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<tr>
<td>Chicago Pub. Schs.</td>
<td>Continuing an occupational experience program for over-age under-achievers in elementary or high school to provide in-school vocational classes or cooperative on-the-job experiences. The program is being conducted in a total of 19 attendance centers.</td>
<td>$ 255,464</td>
<td>$ 408,344</td>
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<td>John Craig</td>
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<td>00023-C7</td>
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<tr>
<td>Chicago Pub. Schs.</td>
<td>A two-pronged project in the Health Occupations; one to provide short term instruction, primarily for adults, for cooks and food service workers and for health aides in the field of long term patient care; and second, to develop profiles of health occupations and to prepare curriculum for certain of these occupations.</td>
<td>$ 78,454</td>
<td>$ 65,530</td>
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<tr>
<td>Lucile Broadwell</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Nadia Andrushko</td>
<td></td>
<td></td>
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<tr>
<td>00024-C7</td>
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<tr>
<td>Dupo H.S.</td>
<td>Explore feasibility of offering aerospace instruction for girls and boys at high school level to fill jobs in this field.</td>
<td></td>
<td>$ 1,920</td>
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<td>William Reynolds</td>
<td></td>
<td></td>
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<tr>
<td>00072-A7</td>
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</tbody>
</table>
Remedial instruction for slow learners (grades 10-11) for basic skills in a special learning center combined with a work experience within the school with a primary emphasis on reading and computation.

A cooperative program identified as "participating occupational experience" for slow learners and low ability students including an extended related class under the direction of a two-teacher team. Television video tapes will be prepared locally to augment instruction.

A data processing/computer program for juniors & seniors in unit record keeping, use of unit record equipment, and Computer Concepts I & II.

A co-educational, occupationally oriented program for underachievers and potential dropouts through a cooperative effort by the business education and industrial education departments emphasizing basic skills in occupations related to the graphic arts.

A program designed to encourage low ability students to complete high school utilizing a basic learnings core and a sheltered work shop for preparatory training leading to employment in semi-skilled or single skilled areas.

A project for under-achievers and potential drop-outs to involve special occupational orientation in regular subjects, a related class in occupational-technical curricula and remedial communication skill development, special counseling with students and parents, and vocational instruction in technical processes and manufacturing.

Continuing a cooperative vocational educational program for slow learners and school drop-outs in a rural, socio-economic depressed area of racially mixed population.
Peoria Pub. Schs. & Park Forrest Foundation
Don Serup
00069-A7
A program designed to reach and motivate under-privileged boys who are potential drop-outs, and potential delinquents by attempting to capitalize on the interest in automobiles, and other mobile equipment, involving operation and service.

Springfield Public Schools
Dr. Mary Loken
00067-A7
A summer school program to establish an experimental vocational experience and information enrichment program for handicapped students at junior high school level through inter-disciplinary approach involving basic and shop manipulative experiences.

Sterling H.S.
Jack Watts
00060-B7
Vocational guidance and occupational information to students via television; closed circuit and video tape, within the school and district (hope to expand on an area basis) for aiding in job choices and for recruitment into vocational classes.

Urbana Jr. H.S.
Dr. R. H. Braun
Dr. W. G. Anderson
00053-A7
Special orientation in common learnings for slow learners in J.H.S. (grades 7-8-9) along with sheltered workshop using mass production techniques for developing vocational awareness, job skills, and attitudinal competencies.

Urbana Sr. H.S.
John Robertson
00070-A7
An extension and follow-up of the Urbana J.H.S. project with similar objectives and to channel students into conventional vocational, and occupational oriented classes, as possible with special emphasis on inter-disciplinary curriculum.

University of Illinois; Div. of Ind. Ed.
Dr. Robt. Campbell
00065-A7
Summer workshop (1966) for teachers of dropout prone youth involving a shop class in operation as a teaching laboratory and curriculum development to be tried by group using television video tape and closed circuit for observation and evaluation.

Woodland Cam. Unit School
Thomas C. Bryan
00071-A7
A continuing one-half day program in basic subject matter subjects in an occupational orientation program for potential school leavers. Reading, Science & Mathematics emphasized in relation to occupations.
Approved Experimental Projects

<table>
<thead>
<tr>
<th>School</th>
<th>Descriptive Objective</th>
<th>1965</th>
<th>1966</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olive Branch High School</td>
<td>Continuing a cooperative vocational educational program for slow learners and school drop-outs in a rural, socio-economic depressed area of racially mixed population.</td>
<td>$16,500.00</td>
<td>$13,402.00</td>
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<td>Lavere Windhorst</td>
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<tr>
<td>Chicago Public Schools</td>
<td>Continuing an occupational experience program for selected youth who have been identified as over-age under-achievers in elementary or high school and under-achievers in high school who have not been successful in conventional programs to provide in-school vocational classes or cooperative on-the-job experiences. Program is offered at Andersen Education and Vocational Guidance Center, Creiger Vocational H.S., Drake Education and Vocational Guidance Center, Flower Vocational H.S., King Education and Vocational Guidance Center, Magellen Education and Vocational Guidance Center, Phillips H.S., James A. Sexton Education and Vocational Guidance Center, and Waller H.S.</td>
<td>$57,400.00</td>
<td>$255,464.00</td>
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<tr>
<td>Lucile Broadwell</td>
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<tr>
<td>Chicago Public Schools</td>
<td>A continuing program for the selection and training of surgical (operating room) technicians and vocational guidance and counseling for out-of-school youth and adults in the health occupations field including a study of necessary job competencies, testing and counseling for training in the emerging health occupations.</td>
<td>$30,416.00</td>
<td>$78,454.00</td>
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<td>Donna Weinstein</td>
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<td>Marengo High School</td>
<td>A program designed to encourage low ability students to complete high school utilizing a basic learnings core and a sheltered work shop for preparatory training leading to employment in semi-skilled or single skill areas.</td>
<td>$35,800.00</td>
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<td>E. C. Nichols</td>
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<tr>
<td>School</td>
<td>Description</td>
<td>Cost</td>
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<td>--------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Evanston High School</td>
<td>A cooperative program identified as &quot;participating occupational experience&quot; for slow learners and low ability students including an extended related class under the direction of a two-teacher team. Television video tapes will be prepared locally to augment instruction.</td>
<td>$26,853.00</td>
<td></td>
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<tr>
<td>Urbana Jr. High School</td>
<td>Special orientation in common learnings for slow learners in J.H.S. (grades 7-8-9) along with sheltered workshop using mass production techniques for developing vocational awareness, job skills, and attitudinal competencies.</td>
<td>19,657.50</td>
<td></td>
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<tr>
<td>Champaign High School</td>
<td>An over-all program combining the various subject areas using a team teaching approach to present commonalities of occupational information pertinent to securing and holding employment. In-school preparatory and cooperative education techniques will be utilized.</td>
<td>42,711.00</td>
<td></td>
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<tr>
<td>Argo Community H. S.</td>
<td>An occupational training program for low academic achievers and drop-outs based on the cooperative education technique with job placements in low skilled and service occupations. Related instruction will be provided and in-service staff consultations will be held among all teachers who are working with these particular learners.</td>
<td>13,900.00</td>
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<tr>
<td>Twp. H. S. Dist. #214</td>
<td>A project for under-achievers and potential drop-outs to involve special occupational orientation in regular subjects, a related class in occupational-technical curricula and remedial communication skill development, special counseling with students and parents, and vocational instruction in technical processes and manufacturing.</td>
<td>49,550.00</td>
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<tr>
<td>Sterling Twp. H. S.</td>
<td>Proposes to develop and use locally prepared TV audio-video tapes to impart vocational guidance and occupational information to students, and to promote enrollments in vocational classes through a closed circuit system. Program may be expanded to provide this service to the surrounding area beyond the home school district.</td>
<td>17,000.00</td>
<td></td>
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</tbody>
</table>
Continuation of a remedial instruction program for slow learners (grade 10 and 11) in basic learning in a special center combined with work experience at the school. Primary emphasis on reading as it relates to vocational application. $20,076.87 $30,023.55

An on-going full day special project for slow learners under one teacher-coordinator providing a half day in common learnings (language usage, social studies, consumer education) and a half day on-the-job experiences in service type occupations. 8,250.00 8,300.00

Special in-school vocational orientation and job related instruction with selective on-the-job experiences through a combination of work study and other placements at the school and in the community. 1,400.00

An adult guidance program for screening, testing, and counseling vocational school entrants, combined with adult cooperative supervised work experience on a full time and part time basis. 24,695.00

An experimental program in data processing preparatory to entrance into unit equipment operator jobs or into advanced post high school training of a more sophisticated nature. 16,000.00
DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Bureau of Research
Division of Adult and Vocational Research
Washington, D.C. 20202

ILLINOIS
PROJECTS FUNDED
FISCAL YEAR 1966
(July 1, 1965 - June 30, 1966)

PRIORITY AREA
1. Program Evaluation
2. Curriculum Experimentation
3. Personal and Social Significance of Work
4. Personnel Recruitment and Development
5. Program Organization and Administration
6. Adult and Continuing Education
7. Occupational Information and Career Choice
8. Miscellaneous
<table>
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<tr>
<th>Project Number</th>
<th>Institution and Principal Investigator(s)</th>
<th>Title</th>
<th>Priority Area</th>
<th>Grant Period</th>
<th>Federal Funds Requested</th>
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<tr>
<td>5-1201</td>
<td>Frank Lynn</td>
<td>Training and Skill Requirements of Machinery Maintenance Personnel</td>
<td>8</td>
<td>4/1/66-6/30/67</td>
<td>$ 70,570</td>
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<td>(BO-502)</td>
<td>Midwest Institute for Education, Research and Training and IMTEC Chicago, Illinois</td>
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<tr>
<td>5-1325</td>
<td>Mary Jean Bowman</td>
<td>A Theoretical and Empirical Analysis of Vocational Preparation in Japan</td>
<td>5</td>
<td>5/1/66-6/30/67</td>
<td>$ 59,120</td>
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<tr>
<td>(BO-537)</td>
<td>University of Chicago Chicago, Illinois</td>
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<td>5-1166</td>
<td>Charles V. Mathews</td>
<td>Research and Evaluation Adjunct to an Experimental Curriculum for Dropout Prone Students in Grades 7-12</td>
<td>2</td>
<td>12/1/65-4/30/66</td>
<td>$ 26,507</td>
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<td>Southern Illinois University Carbondale, Illinois</td>
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<td>5-8357</td>
<td>Rhee Lyon</td>
<td>A Study of the Aspirations of Married Women College Graduates</td>
<td>3</td>
<td>5/2/66-4/30/67</td>
<td>$ 4,351</td>
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<td>Northwestern Univ.</td>
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<td>6-2208</td>
<td>K. Norman Severinsen</td>
<td>Vocational-Educational Information Workshop for Rural Guidance Workers</td>
<td>4</td>
<td>5/1/66-6/30/67</td>
<td>$ 15,300</td>
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<td>Western Illinois University Macomb, Illinois</td>
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<td>6-8075</td>
<td>John Apel</td>
<td>Predictions of Adults Educator's Attitudes Toward Changes in University Policies</td>
<td>3</td>
<td>4/22/66-4/30/67</td>
<td>$ 8,046</td>
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<td>University of Chicago Chicago, Illinois</td>
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<td>5-0114</td>
<td>Robert H. Zeller</td>
<td>Use of a Mobile Vocational Guidance Unit -- A Pilot Project</td>
<td>7</td>
<td>7/1/65-6/30/68</td>
<td>$ 45,500</td>
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<td>State Department of Public Instruction Springfield, Illinois</td>
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<td>5-0165</td>
<td>Naomi LeB. Naylor</td>
<td>Curriculum Development Program for Preschool Teacher Aides</td>
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<td>11/1/65-4/30/67</td>
<td>$ 76,973</td>
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<td>Grant Number</td>
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<td>Phase</td>
<td>Start Date</td>
<td>End Date</td>
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<tr>
<td>5-1215</td>
<td>Lloyd J. Phipps, University of Illinois, Urbana, Illinois</td>
<td>A Study in Communication Between High School Teachers of Vocational Agriculture and Socioeconomically Disadvantaged Youth by Use of the Semantic Differential</td>
<td>2</td>
<td>12/1/65</td>
<td>8/31/66</td>
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<tr>
<td>5-8465</td>
<td>Ruth E. Whitmarsh, Elizabeth Simpson, University of Illinois, Urbana, Illinois</td>
<td>An Exploratory Study to Identify the Knowledges in Child Development and Guidance Needed by Mothers and by Workers in Occupations Related to Child Care</td>
<td>2</td>
<td>12/1/65</td>
<td>8/31/66</td>
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<tr>
<td>6-1538</td>
<td>Paul Hemp, University of Illinois, Urbana, Illinois</td>
<td>Summer Institute for Teachers of Ornamental Horticulture in Midwestern Sector of the United States</td>
<td>2</td>
<td>2/1/66</td>
<td>7/31/67</td>
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<tr>
<td>6-2208</td>
<td>K. Nornem Severinsen, Western Illinois University, Macomb, Illinois</td>
<td>Vocational-Educational Information Workshop for Rural Guidance Workers</td>
<td>4</td>
<td>5/1/66</td>
<td>6/30/67</td>
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<tr>
<td>6-2336</td>
<td>Hugh C. Wales, University of Illinois, Urbana, Illinois</td>
<td>A Research and Development Program For Training in Micro-Precision Skills</td>
<td>2</td>
<td>6/24/66</td>
<td>8/31/67</td>
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<td>No.</td>
<td>Initiator and Institution</td>
<td>Title</td>
<td>Type of Project</td>
<td>No. Mos.</td>
<td>Total Federal Funds Requested</td>
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<tr>
<td>S-0086</td>
<td>Charles V. Mathews Demonstration: An Educational Program on Slow Learners in Grades 7-12</td>
<td>E-D-P</td>
<td>26</td>
<td>$214,317</td>
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<td>ERD-401</td>
<td>Naomi Naylor Curriculum Development Program for Preschool Teacher Aides</td>
<td>E-D-P</td>
<td>18</td>
<td>76,973</td>
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<td>ERD-480</td>
<td>Ruth E. Whitmarsh, Elizabeth Simpson An Exploratory Study to Identify the Knowledges in Child Development and Guidance Needed by Mothers and by Workers in Occupations Related to Child Care</td>
<td>Res.</td>
<td>9</td>
<td>8,975</td>
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<tr>
<td>No.</td>
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<td>Title</td>
<td>Type of Project</td>
<td>No.</td>
<td>Total Federal Funds Requested</td>
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<tr>
<td>HRD-088-65</td>
<td>R. O. Gallington Southern Illinois University, Carbondale, Illinois</td>
<td>An Investigation of the Fate and Probable Future of High SchoolDropouts and Potential High School Dropouts in Alexander County, Illinois</td>
<td>Res.</td>
<td>6</td>
<td>$9,042</td>
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<td>HRD-101-65</td>
<td>R. M. Tomlinson University of Illinois, Urbana, Illinois</td>
<td>A Long-Range Study of Practical Nursing</td>
<td>Res.</td>
<td>29</td>
<td>$344,930</td>
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<td>HRD-108-65</td>
<td>Lloyd J. Phipps University of Illinois</td>
<td>Improved Opportunities for Disadvantaged Youth Through Vocationally Oriented Education</td>
<td>E-D-P</td>
<td>60</td>
<td>$211,200</td>
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**EDUCATIONAL RESOURCES AND DEVELOPMENT PROJECTS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Initiator and Institution</th>
<th>Title</th>
<th>Type of Project</th>
<th>No.</th>
<th>Total Federal Funds Requested</th>
<th>Type of Approval</th>
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<tbody>
<tr>
<td>ERD-003-65</td>
<td>Rupert N. Evans University of Illinois</td>
<td>Seminars for the Training of Researchers in Vocational Education</td>
<td>Tng.</td>
<td>7</td>
<td>$76,833</td>
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**HRD-108-65**

**Title**

**Type of Project**

**No.**

**Total Federal Funds Requested**

**Type of Approval**

**ERD-003-65 (OE-5-85-002)**

**Title**

**Type of Project**

**No.**

**Total Federal Funds Requested**

**Type of Approval**
| ERD-006-65 | Frederick Bertolaet | Regional Conferences on Education, Training and Employment | Tng. | 36 | $228,450 | A |
| ERD-025-65 | Jerry S. Dobrovolsky | An Eight-Week Summer Training Program to Improve the Competency of High School Drafting Teachers in Mathematics, Graphics, and Statistics | Tng. | 8 | $44,479 | P |
| ERD-154-65 | Frank Sorenson | A Demonstration Training Program for Potential School Dropouts | E-D-P | 36 | $32,015 | P |
| ERD-251-65-S | Dr. Elizabeth J. Simpson | The Classification of Education Objectives in the Psychomotor Domain | Res. | 12 | $9,000 | A |
| ERD-320-65 | Mr. V. E. Burgener | An Occupational Research and Development Unit for the State of Illinois | RCU | 18 | $100,000 | A |
| ERD-400-65-S | Anna Carol Fults | Workshop for the Preparation of Wage-Earning Programs in Food Service | Tng. | 10 weeks | $6,192 | |

**Number of Prefixes**
- EO - Employment Opportunities
- HRD - Human Resources Development
- ERD - Educational Resources and Development

**Type of Project**
- Res. - Research
- Tng. - Training
- E-D-P - Experimental, Developmental, or Pilot

**Type of Approval**
- A - Full Approval
- P - Provisional Approval (requires adjustments in original proposal plan)