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REPORT OF A NATIONAL SEMINAR ON AGRICULTURAL EDUCATION, "A DESIGN FOR THE FUTURE" (OHIO STATE UNIVERSITY, JULY 22-AUGUST 2, 1963).

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The seminar objectives were to (1) become further acquainted with the report of the President's Panel of Consultants on Vocational Education, (2) become familiar ith promising developments and innovations in agricultural education, (3) crystallize thinking concerning new directions and orientations for vocational agriculture, (4) examine leadership roles, and (5) develop a suggested agenda for state staff action. The seminar was attended by 76 state supervisors and teacher educators and 22 consultants. Four task force reports were presented on developing effective leadership patterns, research and program development, expansion and extension of programs, and effectively assisting teachers. Consultants and participants presented 23 speeches encompassing various aspects of agricultural and vocational education. A statement concerning the role of agricultural education in the public schools was developed by participants during the seminar. Purposes of agricultural education, according to the statement, are to contribute to the broad educational objectives of the public schools, and to provide education for employment in agriculture. Vocational education in agriculture was recommended for high school students, post-high school youth, working youth and adults, and youth and adults with special needs who may engage in agricultural occupations. (DM)

REPORT

OF

A NATIONAL SEMINAR ON AGRICULTURAL EDUCATION,

"A DESIGN FOR THE FUTURE"

The National Center for Advanced Study and Research

in Agricultural Education,

July 22--August 2, 1963

The Ohio State University

Columbus, Ohio

PREFACE

Over one hundred state and national leaders in agricultural education and vocational education, representing thirty-four states, the District of Columbia, and the Virgin Islands, met at the National Center, July 22 to August 2, 1963, to focus on problems of state and national significance relating to state staff responsibilities for implementing the recommendations of the President's Panel of Consultants on Vocational Education.

Recognizing that keeping up with change is the key to survival and creating change is the key to leadership, the seminar participants had as one of their major concerns the further development and refinement of state staff leadership patterns. Attention also was given to new directions and orientations for agricultural education. Promising developments and innovations were reported and analyzed.

The seminar meetings were characterized by a positive, stimulating spirit of free inquiry. Traditional practices and concepts were questioned and re-evaluated in light of present circumstances as the seminar focused on ways and means state staffs could provide more effective leadership in improving, extending, and expanding agricultural education in the public schools.

As the seminar progressed it became increasingly clear that the "Design for the Future" would not be a design for a standard agricultural education program which would be replicated in each school throughout a state or by each state throughout the nation, but that the design would encompass multiple patterns. Neither would every local program be expected to provide for all the specialized training needs in agriculture. In many areas new organizational and administrative patterns will need to be developed. Diversity, flexibility, and adaptability should be the cornerstones of agricultural education for the future if we are to develop comprehensive programs which will adequately meet the specialized educational needs of the agricultural industry.

One of the difficulties in reporting a meeting of this type is capturing the "spirit of the meeting" and all of the other benefits accruing from such an activity. The following presentations and task force reports constitute the major thoughts emanating from the seminar discussions. They should not be looked upon as final but rather developmental as they contribute to the participants' and readers' concepts of the "Design for the Future."

As would be expected in meetings of this nature, the major benefits were derived by the participants as they shared ideas, raised questions, acquired new insights, and broadened and extended their concepts and understandings. Admittedly, this report cannot and does not contain all of the values emanating from such interactions. Unfortunately, many of these benefits fell between the chairs. Therefore, it should be emphasized that this report is only a partial expression of the benefits derived from the seminar.

I would like to express my thanks and appreciation to all the participants and members of the consultant staff for their enthusiastic attitude and cooperation, and especially to Mr. S. S. Sutherland for his assistance throughout the seminar. I also gratefully acknowledge the cooperation of the Ohio Vocational Agriculture Service and the Department of Agricultural Education of The Ohio State University in planning for the seminar and in preparing this report.

Admittedly, much remains to be done; however, we sincerely hope that the seminar and this report will in some measure assist the profession in providing effective leadership for agricultural education.

Robert E. Taylor
Director

TABLE OF CONTENTS

P A R T I C I P A N T S

State	Name	Position
Alabama	Ben P. Dilworth	Supervisor
California	Jerry J. Halterman	Instructor, Modesto Junior College
Colorado	Paul Foster	Supervisor
	M. G. Linson	Supervisor
	Floyd McCormick	Teacher
Florida	G. C. Norman	Program Specialist
Georgia	H. T. Lester	Teacher Educator
	G. L. O'Kelley, Jr.	Teacher Educator
	Josiah Phelps	Supervisor
Idaho	Ralph W. Edwards	Supervisor
Illinois	Ralph A. Benton	Teacher Educator
	J. W. Matthews	Teacher Educator
	J. R. Warmbrod	Teacher Educator
Indiana	Harold B. Taylor	Supervisor
Iowa	Clarence E. Bundy	Teacher Educator
Kansas	Ray Agan	Teacher Educator
	John Lacey	Supervisor
Kentucky	M. M. Botto	Supervisor
	Carl Lamar	Teacher Educator
Louisiana	C. L. Mondart	Teacher Educator
Maryland	Glenn Lewis	Supervisor
Michigan	Harry E. Nesman	Supervisor
Mississippi	Obed L. Snowden	Teacher Educator
	Louis N. Wise	Dean, College of Agriculture
	J. R. Hamilton	Teacher Educator
Missouri	G. F. Ekstrom	Teacher Educator
	C. V. Roderick	Teacher Educator
Nebraska	James T. Horner	Teacher Educator
New Mexico	Ramsey M. Groves	Teacher
New York	C. W. Hill	Teacher Educator
	Everett Lattimer	Supervisor
	R. C. S. Sutliff	Supervisor
North Carolina	Joe R. Clary	Supervisor
	J. W. Warren	Supervisor
Ohio	Ralph E. Bender	Teacher Educator
	Leon W. Boucher	Teacher Educator
	H. D. Brum	Supervisor
	Clarence J. Cunningham	Teacher Educator
	James E. Dougan	Supervisor
	Lloyd B. Fidler	Supervisor (Retired)
	Gilbert S. Guiler	Teacher Educator
	Earl F. Kantner	Supervisor
	Paul Pulse	Supervisor

State	Name	Position
Ohio (Continued)	D. R. Purkey	Supervisor
	Harlan Ridenour	Supervisor
	F. J. Ruble	Supervisor
	Neil O. Snepp	Teacher
	John T. Starling	Supervisor
	Warren G. Weiler	Supervisor
	Richard H. Wilson	Teacher Educator
	Willard H. Wolf	Teacher Educator
Oklahoma	Byrle Killian	Supervisor
	Robert R. Price	Teacher Educator
Oregon	Leonard Kunzman	Supervisor
	William R. Morris	
Pennsylvania	J. C. Fink	Supervisor
South Carolina	Lowery H. Davis	Teacher Educator
	W. F. Hickson	Teacher Educator
South Dakota	Jim Hannemann	Teacher
Tennessee	Kenneth K. Mitchell	Supervisor
	Albert J. Paulus	Subject Matter Specialist
Texas	John Holcomb	Teacher Educator
	J. R. Powell	Teacher Educator
	Carl O. Westbrook	Teacher
Virginia	C. E. Richard	Teacher Educator
	Archer L. Yeatts, Jr.	Supervisor
Washington	Henry Polis	Supervisor
West Virginia	Joseph K. Bailey	Supervisor
	R. C. Butler	Teacher Educator
	Homer E. Edwards	Supervisor
Wisconsin	Dale C. Aebischer	Supervisor
	Doyle Beyl	Supervisor
	Walter T. Bjoraker	Teacher Educator
	Marvin D. Thompson	Teacher Educator
Virgin Islands	Samuel Whitaker	Teacher
Southern Rhodesia	T. A. Murton	Chief Training Officer in Agricultural Education

C O N S U L T A N T S

Name	Position
Walter M. Arnold	Assistant Commissioner for Vocational and Technical Education, U. S. Office of Education
John A. Beaumont	Director, Distributive Education Branch, U. S. Office of Education
Bert L. Brown	Chief Supervisor, Agricultural Education, Washington
A. G. Bullard	State Supervisor, Agricultural Education, North Carolina
Raymond M. Clark	Associate Professor of Agricultural Education, Michigan State University
Herbert R. Damisch	Chief, Agricultural Education, Illinois
H. M. Hamlin	Professor Emeritus of Agricultural Education and formerly Chairman, Division of Vocational Education, University of Illinois
George H. Hurt	Director, Vocational Agricultural Education, Texas
Floyd Johnson	Teacher of Vocational Agriculture, York, South Carolina; Past President, National Vocational Agriculture Teachers Association; and Member, President's Panel of Consultants on Vocational Education
Roy M. Kottman	Dean, College of Agriculture and Home Economics, The Ohio State University
Allen Lee	Assistant Superintendent in Charge of Division of Education Development, Oregon State Department of Education
William B. Logan	Professor of Education, The Ohio State University, and Member, President's Panel of Consultants on Vocational Education
David R. McClay	Chairman, Department of Agricultural Education, Pennsylvania State University
M. D. Mobley	Executive Secretary, American Vocational Association, Washington, D. C.
R. E. Patterson	Dean, College of Agriculture, Texas Agricultural and Mechanical College
Milo J. Peterson	Chairman, Department of Agricultural Education, University of Minnesota, and President, American Vocational Association
Robert M. Reese	Director, Trade and Industrial Education, The Ohio State University
Byrl R. Shoemaker	State Director of Vocational Education, Ohio, and Vice President representing Trade and Industrial Education, American Vocational Association

Name	Position
S. S. Sutherland	Chairman, Department of Agricultural Education, University of California
Jesse A. Taft	State Supervisor, Agricultural Education, Massachusetts
A. W. Tenney	Director, Agricultural Education Branch, U. S. Office of Education
Benjamin C. Willis	General Superintendent of Schools, Chicago, and Chairman, President's Panel of Consultants on Vocational Education

PART I

SEMINAR GUIDELINES

PLANS FOR THE SEMINAR -- "A DESIGN FOR THE FUTURE"

by
Robert E. Taylor
Director, National Center
for Advanced Study and Research
in Agricultural Education

Before outlining in some detail the plans for this National Seminar, "A Design for the Future," it seems appropriate to review the setting or climate in which vocational education in general and vocational agriculture in particular find themselves. There are on the horizon indications that vocational education is in its ascendancy. Professional critics notwithstanding, the public's recognition and estimation of the worth of vocational education are high. In fact, a danger may exist that in some quarters vocational education is being looked upon as a panacea or cure-all for most of our social and economic ills, that public expectancies may be greater than any educational program can deliver.

In any event, it appears that we are meeting at a challenging and stimulating time in the development of agricultural education. While vocational agriculture has seemingly been at some crossroads throughout its forty-five years of existence, we nevertheless have reason to believe that this is a crucial, yet invigorating, time to be associated with the program.

Looking at the doughnut rather than the hole, we can cite a number of positive factors:

* The report of the President's Panel of Consultants on Vocational Education has had a favorable reception.

* Public interest and support for vocational education are high.

* Our agricultural education profession is in a healthy state of ferment. We are undergoing a dramatic re-appraisal; objectives for vocational agriculture are being carefully evaluated with an eye toward needed modifications; traditional practices are being examined.

* The national legislative scene is encouraging. There exists the strong possibility of additional financial support and a broader legislative franchise for serving the agricultural education needs of the nation.

* One of the most encouraging factors is increased interest and awareness by state staffs of their leadership role. Closely paralleling this development is the intensification of professional improvement activities for state staff members. This positive development has been accompanied by a renaissance within state departments of education. These departments are awakening to their true leadership role. Emphasis appears to be shifting from inspectional and regulatory functions to instructional leadership.

* In the total program we see vigorous seeds of change: Promising growing edges guided by carefully developed plans refined in many instances through pilot and experimental programs. We see more interest and vigor in a comprehensive research effort.

* The National Center has added a new dimension and service to the agricultural education profession.

Basically, we can conclude that the climate for vocational education is good. It is the time for both taking stock and looking ahead.

Who will develop the "Design for the Future"?

Observers on the educational scene have frequently commented on the relative effectiveness of external and internal influences on educational programs.

To put the issue differently -- are we leaders or followers? Are we determiners of change or merely recorders of change? It would seem that the time for re-assertion and re-emphasis of the possibilities inherent in effective internal leadership is at hand. It also would seem that state staffs now face their greatest challenge and opportunity for creative leadership. We have been challenged to extend and update our program, retaining and building on the proven features of the existing program. We hope this seminar will contribute to this end.

One of the charges of the AVA Advisory Committee to the National Center was the development of a program for this summer. Furthermore, they specified that:

1. The topic should be of national significance.

2. The program should be appropriate for and meet the needs of all state staff members.

These charges have been kept in mind in formulating plans for this seminar. The report of the President's Panel of Consultants on Vocational Education seemed to be the logical point of departure for such an activity.

Before examining the specific objectives of the seminar, may I emphasize some of the underlying concepts followed in structuring this activity:

1. Maximize the possibilities for developing internal leadership for "Keeping up with change is the key to survival; creating change is the key to leadership."

2. Focus primarily on the leadership responsibilities of state staffs for implementing the recommendations of the President's Panel of Consultants. In accordance with Center policy, we are primarily concerned with the needs of state staffs.

Let us now examine the working objectives that have been developed for this seminar:

1. To become further acquainted with the Panel Report and its implications.

2. To become familiar with promising developments and innovations in agricultural education.

3. To crystallize our thinking concerning new directions and orientations for vocational agriculture.

4. To examine our leadership roles.

5. To develop a suggested agenda for state staff action.

6. ?

I have listed a sixth objective with a question mark because we may need to develop additional objectives to guide our efforts here. Furthermore, I think it especially appropriate that we give consideration to your personal objectives as you participate in and contribute to this national seminar. We sincerely hope that through our activities and interaction your personal objectives, as well as those of the group, will be realized.

Basically, this is what we hope to do.

Working together, how will we proceed to get the job done? First, I would like to stress that neither the Center nor the seminar staff has a pat hand or a package of answers to our current problems. Neither are we trying to sell a particular philosophy or viewpoint. We do not have a fixed position, but rather an attitude--a questioning attitude and the belief that agricultural education is good but that it can be better; that it needs extending, expanding, and improving; and that the leadership responsibility for effecting these changes rests in the main with you and your fellow leaders throughout the nation.

The seminar will not provide a panacea for all of our problems. Neither do we expect any "major breakthrough" in the sense of educational wonderdrugs. The intricate and complex problems facing us do not lend themselves to a simple solution. They will only be solved by objective thinking, cooperative effort, and hard work.

We should also mention that this seminar is not charged with action or policy development. Rather, it is a study group. The outcomes of the seminar will be guides to individuals and state staffs who are free to accept or reject the suggestions as they seem appropriate to their needs.

Furthermore, our approach is evolutionary--not revolutionary. We do not plan to burn down the barn to kill a few rats. At the same time, we do plan to take a sharp look at some "sacred cows".

To maximize the potential benefits from the seminar to you individually, to the state programs you represent, and to the profession, we encourage -- we want -- yes, even require your best participation and thinking. Everyone's ideas are important. Regardless of your position, irrespective of the size of your state program, your years of experience notwithstanding, we want your ideas and questions. Hopefully, we will have active participants, not passive observers.

Before we move through the stages of identifying problems, assigning priorities, and focusing our best efforts on developing suggested agendas for state staff action, it seems appropriate to examine our resources. In any discussion of available resources for a seminar of this type it is essential that we think of the participants themselves as the most valuable resource. You representatives of 34 states and one territory, in yourselves, constitute a valuable and rich resource. Your knowledge and experiences, coupled with the contributions of our consultant staff and provided with such a dynamic atmosphere here, cannot help but contribute to our group progress. Remember, also, that the "bull sessions" during coffee breaks, in the dormitories, and at other times will provide additional opportunities for an important exchange of ideas on a wide range of topics.

During the seminar we will have an opportunity to hear presentations from a number of leaders in agricultural education, vocational education, and related fields. I am sure that you will find their contributions especially helpful. I particularly want to re-emphasize the opportunity and obligation you have to raise questions with these people -- questions which contribute to our deliberations here and apply to problems back home. A copy of the consulting staff's presentations will be a part of the seminar report. The members of the consulting staff will, in most instances, be available for further questioning during our task force efforts. Members of the consultant staff have been asked to suggest an agenda for state staff action as it relates to their particular topic. We have asked them to identify specific steps that need to be taken, both in terms of what can and should be done in terms of present policy, what can and should be done in terms of a broader legislative franchise and increased financial support. We have also asked that they objectively evaluate their innovations or developments -- what are the problems in the development and operation of their innovations?

A large number of other sources of assistance exist on the campus in terms of staff personnel and University libraries. Feel free to utilize them fully.

I would hope that we will be operating in a climate of open-mindedness; that there will previal a spirit of inquiry that will permit and encourage a questioning attitude. The staff presentations and the Panel Report are merely points of departure for our deliberations. They are not necessarily final answers. The "Design for the Future" has yet to be developed.

As we reflect on the objectives for this seminar and review the recommendations of the President's Panel and the topics to be presented by our consultant staff, we see several common threads or general patterns developing. These appear to be:

1. To provide continuing reappraisal of the role and function of agricultural education in the public schools.

2. To upgrade state leadership in agricultural education through an advanced study and in-service education program.

3. To provide educational opportunities for individuals contemplating foreign assignments and leaders from other countries responsible for the administration and supervision of agricultural education.

4. To coordinate research undertakings among states, initiate research where needed, and strengthen state programs of research.

These common threads will constitute the four task forces functioning during the seminar. We plan as a group to clarify the role of agricultural education, identify problems confronting state staffs, and assign priorities for task force efforts. It is almost unnecessary to stress that some of the major outcomes and benefits of the seminar will be contingent upon the effectiveness of our task force groups. Here you will have additional opportunities to examine in depth some of the current problems, exchange viewpoints and suggestions as you move toward a suggested agenda for action.

I would like to call your attention to the special role that Mr. S. S. Sutherland will play during the seminar. In addition to assisting with the general direction of the meeting he will also give particular attention to the dynamics of group action. I am sure that his experience and "deft touch" will be beneficial and helpful.

This provides a brief over-view of the expectancies for our two weeks together. May I reiterate that the seminar pattern is not fixed, that our objectives and problem priorities can be adjusted and redirected according to your needs, interests, and concerns.

While it may be premature to suggest a specific follow-up for this meeting, it does seem timely to at least hurriedly over-view some of these possibilities:

1. Report on the seminar to combined state staffs upon your return.

2. Consider the advisability of conducting "design" seminars in your state or perhaps empaneling a group of consultants or a task-force to study problems and redirections for vocational agriculture or all vocational education.

3. Plan to participate in future Center activities.

4. Provide a feed-back to the Center. Keep us posted on innovations, developments, and progress in implementing some of the suggestions growing out of the seminar.

In summary, we have the prospects of a stimulating and rewarding experience during the next two weeks. The ingredients are here. We have common concerns, a rich background of experiences, an outstanding consulting staff, a favorable climate for vocational education, and, we hope, an appropriate setting for effective group effort here at the National Center. To paraphrase Dickens -- it may be the best of times, it may be the worst of times for agricultural education. The quality of our thinking and the effectiveness of our leadership should be decisive factors in developing "A Design for the Future."

THE ROLE OF AGRICULTURAL EDUCATION IN THE PUBLIC SCHOOLS*

The purposes of agricultural education in the public schools are two fold: To contribute to the broad educational objectives of the public schools; to provide education for employment in agriculture.

Agriculture is and will continue to be an essential part of our country's economic and social structure. Education in agriculture should be available to all those who are or may be engaged in this important field of endeavor and to many who may participate as citizens in the formulation of public policy for agriculture.

To accomplish these purposes, programs of agricultural education should be improved, expanded, and extended to meet the educational needs of youth and adults. These programs should include vocational education for:

1. High school students

   a. Youth in high school who are preparing to enter agriculture, including both farming and ranching and other agricultural occupations (occupations in which competency in agriculture is essential or highly advantageous)

   b. Youth who need agricultural education preparatory to continuing their study in technical schools, colleges, and universities

   c. Youth who need assistance in making a valid vocational choice concerning an agricultural occupation

2. Post-high school youth

   a. Those continuing and returning for extended formal pre-employment education

      (1) Those preparing for or becoming established in farming or ranching

      (2) Those preparing for other agricultural occupations, such as technicians and agricultural service personnel

3. Working youth and adults

   a. Those who need or desire training and retraining for farming or ranching

   b. Those who need training or retraining in other agricultural occupations

4. Youth and adults with special needs who may engage in agricultural occupations

   These should include, but not necessarily be limited to:

   a. The handicapped youth and under-achievers

   b. The unemployed and underemployed

   c. Those who are otherwise disadvantaged

In addition to vocational instruction pointed either directly or indirectly toward preparation for employment, agricultural courses should be provided for youth and adults. These may include, but should not be limited to:

1. Elementary and junior high courses and/or units which are primarily exploratory and appreciational in nature

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*This role statement was developed by participants during the seminar.

2. Courses in the high school offered primarily for their enrichment and avocational values

3. Avocational courses for adults, such as gardening, animal science, home beautification, home mechanics

4. Courses for business and professional persons and others who wish to develop a better understanding of agriculture

The need for providing a broad range of educational opportunity in agriculture to all who are interested and will benefit from it is clear. The population of this country is mobile and many agricultural occupations are transitory. Diversity, adaptability, and flexibility must characterize the programs of agricultural education in the future. The pattern that may be applicable or desirable in one locality or state may not be suitable in another.

Furthermore, as we inventory opportunities for providing agricultural education for youth and adults we should not attempt to do the job alone nor should we conclude that all these needs must be met at one level of education. The emerging community colleges, vocational-technical area schools, and the addition of the thirteenth and fourteenth years to some comprehensive high schools provide opportunities for even more diversified and more specialized programs of agricultural education than we presently have or envision. The necessity for continuing appraisal and redirection is recognized if we are to provide effective agricultural education for this nation's youth and adults.

PART II

TASK FORCE REPORTS

Editor's Note: In developing these reports the task forces gave attention to the rationale for their recommendations, including reasons for and possible limitations. Space did not permit including this section in the final reports.

In a few instances recommendations of a task force have been combined with the recommendations of another task force.

TASK FORCE NO. 1

DEVELOPING EFFECTIVE LEADERSHIP PATTERNS

Chairman:	E. C. Lattimer
Recorder:	John Holcomb
	Lowery Davis Homer Edwards Jerry Halterman Byrle Killian Leonard Kunzman Glenn Lewis Henry Polis Paul Pulse Richard Wilson
Consultants:	Bert L. Brown A. G. Bullard Warren Weiler

TASK FORCE NO. 1 -- DEVELOPING EFFECTIVE LEADERSHIP PATTERNS

MAJOR GOALS AND RECOMMENDATIONS

I. TO EFFECTIVELY DEVELOP AND UTILIZE THE STATE STAFF.

Specific Recommendations for State Staffs:

A. Organize state staff for providing effective leadership to existing, expanded, and modified programs.

B. Secure specialized assistance for local vocational agriculture teachers.

C. Analyze each staff position to determine optimum qualifications and characteristics for personnel. In filling staff positions consider the present staff and vocational agriculture teachers as a good source of personnel for expanding programs. In those positions requiring personnel with specialized competencies other than the usual vocational agriculture pattern, an understanding of vocational agriculture should be considered essential.

D. Provide for the recruitment and retention of local instructors to maintain present programs and for new and expanded programs.

E. Develop in cooperation with representatives of the institution or institutions designated to train vocational agriculture teachers, policies needed for comprehensive pre-service, in-service, and advanced degree programs.

F. Develop guidelines for effective joint staff effort in each state.

G. Participate in state and national professional associations and/or organizations concerned with agriculture, Agricultural Education, and education.

H. Recognize the National Center as the uniquely appropriate vehicle for developing and upgrading state leadership, communicating ideas and concepts, and coordinating research related to Agricultural Education.

I. Promote policy for in-service training, both professional and technical, for state staff members and teachers of vocational agriculture.

II. TO DEVELOP AN ADEQUATE PROGRAM OF PUBLIC INFORMATION.

Specific Recommendations for State Staffs:

A. Plan and participate in a comprehensive program that will reflect the public image agriculture and Agricultural Education rightfully deserve.

B. Work with State Department of Education and college personnel to develop a mutual understanding and effective working relationships between local guidance counselors and teachers of vocational agriculture.

C. Organize and use state consulting committees for Agricultural Education.

D. Aid other professional agricultural workers in securing information and conducting agricultural research on the state and national levels.

III. TO DEVELOP POLICIES NEEDED FOR IMPROVED PROGRAMS OF VOCATIONAL AGRICULTURE.

Specific Recommendations for State Staffs:

A. Communicate with all institutions or agencies providing education in agriculture to develop mutual understanding of purposes and climate conducive to cooperation.

B. Work with leaders of other vocational education services to make such adjustments in programming and curriculum as are needed to best serve occupational needs of youth and adults.

C. Determine the need for funds and their proper allocation to secure maximum educational benefits from an expanded and extended state program.

D. Involve persons responsible for the administration of Agricultural Education programs at all levels in the development of policies, staff patterns, and administrative procedures pertaining to Agricultural Education and establish guidelines for the preparation of state plans which are sufficiently broad and flexible to permit State Departments of Education and local schools to replan existing programs and design new programs consistent with the rapidly changing patterns of school reorganization and employment opportunities in agriculture.

E. Communicate the values and program needs of Agricultural Education to school administrators, both for the purpose of introducing new programs and upgrading and extending existing programs. Two-way communication should be maintained to secure suggestions and evaluations from local personnel.

F. Assist local school officials, boards of education, superintendents, principals, teachers of vocational agriculture, advisory committees, and others in studying community needs for Agricultural Education and in developing local policy statements, giving needed assistance to planning and implementing complete programs.

G. Provide for evaluation of programs at both the state and local levels.

I. Major Goal: TO EFFECTIVELY DEVELOP AND UTILIZE THE STATE STAFF.

A. Specific Recommendation for State Staffs: Organize state staff for providing effective leadership to existing, expanded, and modified programs.[1]

1. Agenda for State Staff Action

a. Joint Staff

(1) Review present and projected program needs and recommend changes and additions in staff functions and personnel.

b. Supervisors

(1) Secure and allocate adequate financing for new programs, including staffing.

(2) Secure additional staff in needed areas.

(3) Reassign functions as programs change.

(4) Provide for equitable distribution of assignments.

(5) Initiate agreements with agencies or institutions for supplying needed services.

c. Teacher Educators

(1) Coordinate those programs of the agricultural colleges which work directly with vocational agriculture.

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[1]Suggested Guidelines for Developing Effective Staff Leadership Patterns:

1. Joint staff planning should be incorporated in program development.
2. Annual and long-range state staff programs should be developed.
3. A state staff manual should be developed, clearly identifying state staff responsibility, authority, and functions.
4. Duties should be identified for each staff member.
5. Sufficient authority should be delegated for proper implementation of policy.
6. Qualifications should be established for all staff positions.
7. Organizational structure should provide for coordination of all programs assigned to Agricultural Education.
8. Contact with local school administrators should be made by one representative of the Agricultural Education staff.
9. A staff large enough in number should be employed to provide adequate services in such areas as instructional materials, public information, post high school programs, research, youth organizations, occupational guidance, and others considered essential to the state.
10. Specialists should be provided in those areas where assistance is needed to reinforce the work of the state field staff; for example, in animal science, plant science, farm mechanics.
11. Direct lines of authority should be maintained between State Directors of Vocational Education and State Supervisors of Agricultural Education.
12. Vocational Agriculture and other vocational programs are unique to the degree that direct lines of communication should be maintained between supervisors, teacher educators, and other staff members.

B. Specific Recommendation for State Staffs: Secure specialized assistance for local vocational agriculture teachers.

1. Agenda for State Staff Action

a. Joint Staff

(1) Determine need for specialized assistance.

(2) Assign priorities for specific needs in subject matter areas.

(3) Supply in-service training where needed.

b. Supervisors

(1) Secure finances needed.

(2) Contract with College of Agriculture or Extension Service for specialized assistance.

(3) Structure the specialist organization (as in Texas program).

(4) Develop policy for programming activities of specialists.

c. Teacher Educators

(1) Coordinate specialized assistance program with the college.

(2) Work with specialists in their course organization and teaching procedures.

C. Specific Recommendation for State Staffs: Analyze each staff position to determine optimum qualifications and characteristics for personnel. In filling staff positions consider the present staff and vocational agriculture teachers as a good source of personnel for expanding programs. In those positions requiring personnel with specialized competencies other than the usual vocational agriculture pattern, an understanding of vocational agriculture should be considered essential.

1. Agenda for State Staff Action

a. Joint Staff

(1) Identify needs for additional personnel.

(2) Establish competencies needed in future personnel.

b. Supervisors

(1) Anticipate, identify, and make tentative reviews of future state staff personnel needs.

(2) Encourage prospective personnel to secure advanced training.

(3) Analyze and classify jobs.

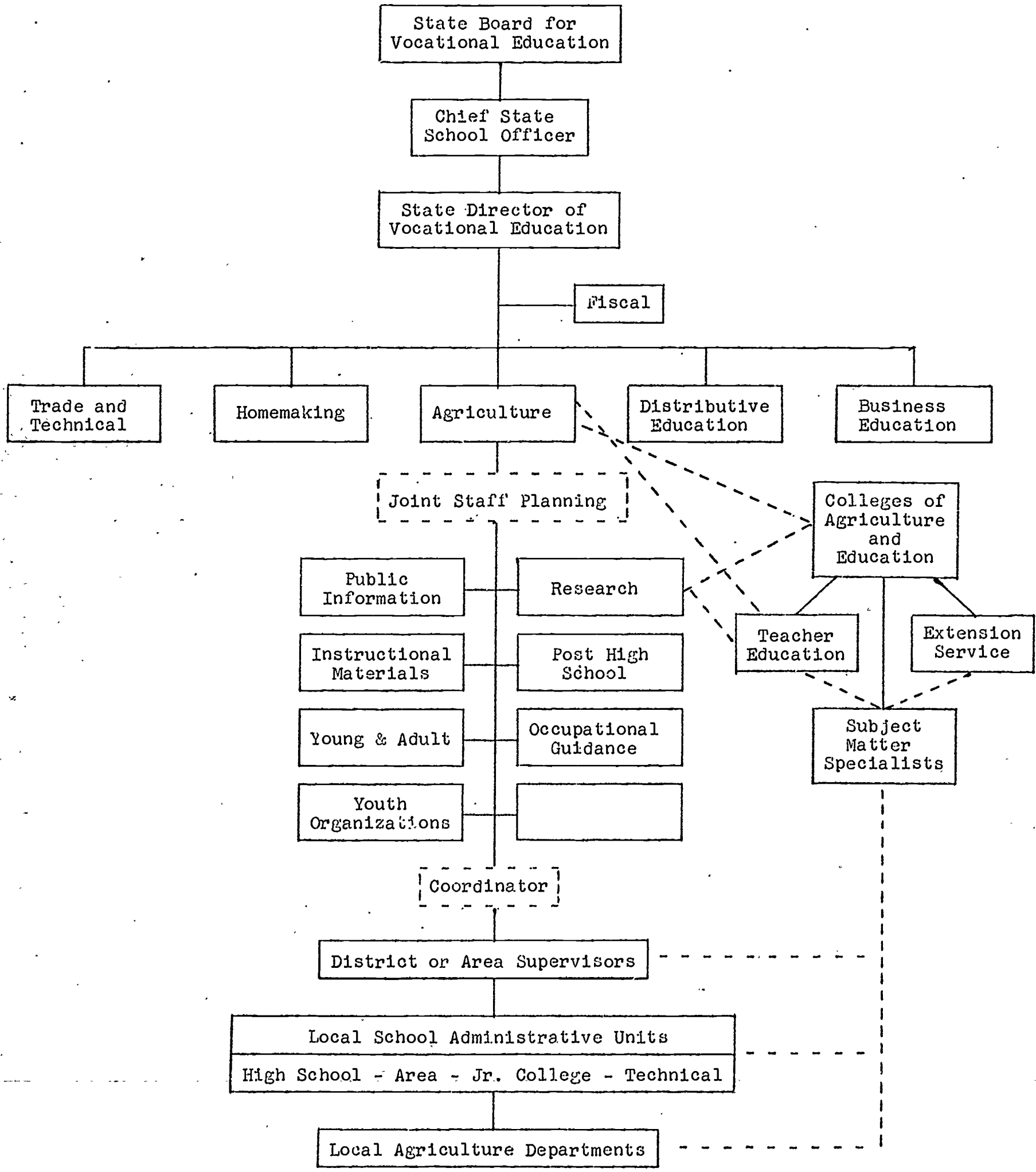
(4) Provide appropriate compensation for positions in order to be competitive.

(5) Provide induction training for new state staff personnel.

(6) Provide continuous training programs for state staff members.

(7) Establish policies which encourage and permit participation by state staff members in professional improvement activities at the National Center and elsewhere.

A POSSIBLE ORGANIZATIONAL STRUCTURE FOR A STATE STAFF



D. Specific Recommendation for State Staffs: Provide for the recruitment and retention of local instructors to maintain present programs and for new and expanded programs.

1. Agenda for State Staff Action

a. Joint Staff

(1) Develop and maintain high morale among vocational agriculture teachers in the state by:

(a) Maintaining effective working relationships with teachers and administrators.

(b) Filling staff positions from the teaching ranks in so far as practical.

(c) Recognizing good work by teachers.

(2) Institute an active recruitment program, recognizing that recruitment is a responsibility of the joint staff.

(3) Encourage the establishment of adequate salary provisions and working conditions.

(4) Encourage the establishment of sabbatical leave policy for teachers.

b. Supervisors

(1) Identify prospects while in local departments and notify teacher trainers.

(2) Encourage the state vocational agriculture teachers association to take an active part in recruiting for the profession.

c. Teacher Educators

(1) Correspond with prospective Agricultural Education students.

(2) Develop informational materials for prospective students and guidance counselors.

(3) Cooperate with college information personnel in planning and producing information for prospective students.

E. Specific Recommendation for State Staffs: Develop in cooperation with representatives of the institution or institutions designated to train vocational agriculture teachers, policies needed for comprehensive pre-service, in-service, and advanced degree programs.

1. Agenda for State Staff Action

a. Joint Staff

(1) Work with the Dean or his representative in implementing the teacher training program, including facilities, program, personnel, and finances.

b. Supervisors

(1) Work with the Dean or his representative in establishing the budget for teacher training and developing the memorandum of understanding.

c. Teacher Educators

(1) Confer with heads of departments and other key personnel in planning the instructional program.

(2) Work with the Dean or his representative to expand teacher education and supporting services as needed.

(3) Keep the college staff and administration abreast of needs, trends, and accomplishments in vocational agriculture.

F. Specific Recommendation for State Staffs: Develop guidelines for effective joint staff effort in each state.

1. Agenda for State Staff Action

a. Joint Staff

(1) Organize as a joint staff, including a committee structure which involves both supervisors and teacher trainers.

(2) Develop a comprehensive program of work for the state staff, including major projects, priorities, and procedures.

(3) Provide for regularly scheduled meetings of the joint staff.

(4) Delegate responsibility to staff committees and individuals.

(5) Develop position statements concerning current issues or problems relating to Agricultural Education in the state.

(6) Evaluate state staff effectiveness.

G. Specific Recommendation for State Staffs: Participate in state and national professional associations and/or organizations concerned with agriculture, Agricultural Education, and education.

1. Agenda for State Staff Action

a. Joint Staff

(1) Identify organizations with which vocational agriculture should be associated and which provide "growth" experiences for state staff members.

(2) Participate actively in these professional and agricultural organizations.

(3) Accept assignments and do a good job.

H. Specific Recommendation for State Staffs: Recognize the National Center as the uniquely appropriate vehicle for developing and upgrading state leadership, communicating ideas and concepts, and coordinating research related to Agricultural Education.

1. Agenda for State Staff Action

a. Joint Staff

(1) Establish policy that permits state staffs to participate in each appropriate function of the National Center.

(2) Provide adequate financial assistance, e.g., sabbatical leave, travel to conferences and workshops.

(3) Submit suggestions to the Director of the Center on needed activities and projects.

I. Specific Recommendation for State Staffs: Promote policy for in-service training, both professional and technical, for state staff members and teachers of vocational agriculture.

1. Agenda for State Staff Action

a. Joint Staff

(1) Encourage sabbatical and other professional leaves of absence for state staff members and teachers.

II. Major Goal: TO DEVELOP AN ADEQUATE PROGRAM OF PUBLIC INFORMATION.

A. Specific Recommendation for State Staffs: Plan and participate in a comprehensive program that will reflect the public image agriculture and Agricultural Education rightfully deserve.[2]

1. Agenda for State Staff Action

a. Joint Staff

(1) Provide for a public relations specialist on the state staff.

(2) Arrange to have a member of the vocational agriculture staff attend important meetings held by agricultural and non-agricultural organizations.

(3) Furnish research findings pertaining to the state vocational agricultural program to all agencies concerned.

(4) Develop a "popularized" version of appropriate research findings to further acquaint the public with the program.

(5) Provide opportunities for members of the state vocational agriculture consulting committee to portray the correct public image.

(6) Provide current factual information and material on agriculture, including the purposes and accomplishments of the vocational agriculture program.

(7) Solicit opinions from informed people on problems confronting vocational agriculture.

(8) Evaluate and interpret research performed by agricultural and non-agricultural agencies to determine its value in advancing the image of agriculture.

(9) Seek avenues of cooperation with related agencies and organizations to develop a program of mutual understanding.

(10) Provide local agriculture teachers with suggested programs and materials, including skeletal news releases, that may be used to improve the image of agriculture.

(11) Conduct workshops on public relations, utilizing the assistance of specialists in the field.

(12) Organize programs to inform all citizens of the services performed by vocational agriculture.

(13) Conduct research to determine factors that influence the public image of agriculture.

(14) Aid in the recruitment and training of teachers who will present the proper image of vocational education.

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[2]See also: Report of Workshop for State Supervisors of Vocational Agriculture, June 18 to 29, 1962, State Supervision Series No. 4 (Columbus, Ohio: Department of Agricultural Education, The Ohio State University, 1962), p. 89.

(15) Encourage teacher membership and participation in local, state, and national farm organizations.

(16) Organize the vocational agriculture teachers group in a way that it realizes the importance of maintaining high program standards.

(17) Recognize deserving individuals for their participation and contribution to the agricultural program.

(18) Prepare and publish news releases.

(19) Publish stories of former students who have been successful in the broad field of agriculture.

(20) Work with all staff members of the vocational education services toward a united front as a means of creating a favorable image for all phases of vocational education.

(21) Evaluate systematically the statewide public relations efforts in vocational agriculture and redirect as necessary.

B. Specific Recommendation for State Staffs: Work with State Department of Education and college personnel to develop a mutual understanding and effective working relationships between local guidance counselors and teachers of vocational agriculture.

1. Agenda for State Staff Action

a. Joint Staff

(1) Compile factual information depicting the true image of and occupational opportunities in agriculture.

(2) Establish liaison with the state staff and university staffs for guidance services.

(a) Involve both state and local guidance personnel with in-service training programs for teachers of vocational agriculture.

(b) Obtain assistance in the development of valid information on agricultural occupations.

(c) Prepare suggested class schedules that enable students of vocational agriculture to prepare for both college and other education beyond high school graduation.

(d) Prepare publications for students that show the opportunities in agriculture for those who have completed vocational agriculture training.

(3) Provide state oriented information on agricultural occupations.

(4) Provide consultant services to local school administrators, guidance personnel, and local teachers of vocational agriculture on areas of guidance.

(5) Publicize lists of consultants available for career clinics on agricultural occupations.

(6) Arrange for revision of certification standards for vocational agriculture teachers to include adequate preparation in the area of counseling techniques and occupational information.

(7) Strive for the inclusion of training on occupational information in the certification standards for counselors.

(8) Provide pre-service training for teachers of vocational agriculture in developing their proficiency in vocational guidance and counseling.

(9) Provide continuing programs of in-service education for upgrading and updating teachers of vocational agriculture in new developments relating to occupational information and guidance.

(10) Insist that local teachers of vocational agriculture work closely with local guidance personnel in providing current information on agricultural careers.

(11) Develop appropriate guidance materials on agricultural occupations for elementary school students. Cooperate with elementary teachers and supervisors in this activity.

(12) Keep guidance personnel throughout the state informed on new materials relating to agricultural careers.

(13) Encourage the cooperation of agricultural industry, business, and organizations in the financing and promotion of:

(a) Agricultural occupations information materials.

(b) Scholarships for worthy individuals.

(c) Opportunities for placement.

(14) Include a unit on career opportunities in agriculture in suggested high school vocational agriculture courses.

(15) Prepare skeletal news stories and radio programs for teachers' use in outlining opportunities in agricultural careers.

C. Specific Recommendation for State Staffs: Organize and use state consulting committees for Agricultural Education.

1. Agenda for State Staff Action

a. Joint Staff

(1) Recommend membership in consultation with the State Director of Vocational Education. The committee members should be officially appointed by the State Board of Education. Some states prefer that selected organizations nominate representatives for the committee.

(2) Limit the size of the committee to a number adequate to provide broad representation, yet small enough for effective informal work.

(3) Use the committee to discuss and provide guidance with regard to current problem areas in vocational agriculture, program projection, and suggested recommendations and procedures.

(4) Use the committee to assist the staff in explaining recommendations to appropriate groups.

(5) Give the committee credit for its contribution when recommendations become policy.

(6) Provide special consultants for the committee when considering new areas of program expansion.

D. Specific Recommendation for State Staffs: Aid other professional agricultural workers in securing information and conducting agricultural research on the state and national levels.

1. Agenda for State Staff Action

a. Joint Staff

(1) Attend meetings where research projects are discussed and planned.

(2) Cooperate with the National Center for Agricultural Education.

b. Supervisors

(1) Inform vocational agriculture teachers about special research projects and solicit their cooperation, and their students' in some instances.

c. Teacher Educators

(1) Attend meetings and assist in developing research projects.

(2) Prepare materials for research and help evaluate findings where needed.

III. Major Goal: TO DEVELOP POLICIES NEEDED FOR IMPROVED PROGRAMS OF VOCATIONAL AGRICULTURE.

A. Specific Recommendation for State Staffs: Communicate with all institutions or agencies providing education in agriculture to develop mutual understanding of purposes and climate conducive to cooperation.

1. Agenda for State Staff Action

a. Joint Staff

(1) Involve representatives of agricultural institutions and agencies in planning programs.

(2) Inform those who are providing education in agriculture about special programs underway, conferences to be conducted, and special events.

(3) Ask heads of institutions or agricultural services to participate in special vocational agriculture events.

(4) Consider organizing a State Agricultural Coordination Council.

(5) Develop an understanding of other agricultural programs to assist in more effective articulation of joint efforts.

B. Specific Recommendation for State Staffs: Work with leaders of other vocational education services to make such adjustments in programming and curriculum as are needed to best serve occupational needs of youth and adults.

1. Agenda for State Staff Action

a. Joint Staff

(1) Encourage and participate in conferences with supervisors and teacher educators of other services in order to better understand the work of each service.

(2) Develop detailed plans for programs with other services.

b. Supervisors

(1) Work directly with the cooperating service to meet the objectives set up for the training program.

c. Teacher Educators

(1) Prepare teaching aids and materials designed for joint programs with other services.

(2) Provide specialized instruction for teachers when needed, possibly involving other vocational teacher educators.

C. Specific Recommendation for State Staffs: Determine the need for funds and their proper allocation to secure maximum educational benefits from an expanded and extended state program.

1. Agenda for State Staff Action

a. Joint Staff

(1) Project the needs for funds, including salaries for additional personnel on the state level, expanded programs, communications, and equipment.

(2) Develop factual data needed to secure additional funding.

(3) Request state support for special Agricultural Education programs within the state.

b. Supervisors

(1) Allocate funds for supervision, teacher education, and other needed services.

(2) Allocate funds to the local level for vocational agricultural education.

(3) Communicate the needs for and justify funds.

D. Specific Recommendation for State Staffs: Involve persons responsible for the administration of Agricultural Education programs at all levels in the development of policies, staff patterns, and administrative procedures pertaining to Agricultural Education and establish guidelines for the preparation of state plans which are sufficiently broad and flexible to permit State Departments of Education and local schools to replan existing programs and design new programs consistent with the rapidly changing patterns of school reorganization and employment opportunities in agriculture.

1. Agenda for State Staff Action

a. Joint Staff

(1) Assemble, classify, and study existing national and state policies.

(2) Evaluate existing policies with respect to their adequacy for redirecting existing programs and for developing new programs.

(3) Develop necessary changes in policies in consultation with the State Director, local school administrators, teachers of vocational agriculture, and advisory committees.

(4) Prepare a state manual of operational procedures and standards in consultation with the State Director, local school administrators, and others concerned with and affected by policies, procedures, and standards.

E. Specific Recommendation for State Staffs: Communicate the values and program needs of Agricultural Education to school administrators, both for the purpose of introducing new programs and upgrading and extending existing programs. Two-way communication should be maintained to secure suggestions and evaluations from local personnel.

1. Agenda for State Staff Action

a. Joint Staff

(1) Confer and plan a course of action to take with local schools in matters of a major nature where both staffs are involved.

(2) Keep local administrators informed on changes and new developments.

b. Supervisors

(1) Recognize local administrator's authority in the vocational agriculture program.

(2) Invite administrators or representatives of the group to special vocational agriculture meetings (FFA Conventions, etc.).

(3) Inform administrators concerning visits and send copies of correspondence.

c. Teacher Educators

(1) Work with local administrators to acquaint them with vocational agriculture.

(2) Use administrators in developing and evaluating the total teacher education program.

F. Specific Recommendation for State Staffs: Assist local school officials, boards of education, superintendents, principals, teachers of vocational agriculture, advisory committees, and others in studying community needs for Agricultural Education and in developing local policy statements, giving needed assistance to planning and implementing complete programs.

1. Agenda for State Staff Action

a. Joint Staff

(1) Plan a comprehensive state-wide program to assist local departments.

(2) Assign responsibilities to effectively carry out the plan.

b. Supervisors

(1) Visit the superintendent and principal when first arriving at the local department of vocational agriculture.

(2) Attend board meetings when invited to do so.

(3) Assist the vocational agriculture teacher when he needs help.

c. Teacher Educators

(1) Work closely with beginning teachers.

(2) Work with teachers on special assignments.

(3) Confer with local administrators.

d. Specialists

(1) Assist the vocational agriculture teacher on special needs.

(2) Provide instructional materials, aids, etc.

G. Specific Recommendation for State Staffs: Provide for evaluation of programs at both the state and local levels.

1. Agenda for State Staff Action

See Task Force No. 4 -- II-A, Page 61.

TASK FORCE NO. 2

RESEARCH AND PROGRAM DEVELOPMENT

Chairman: Harold Taylor

Recorder: Marvin Thompson

Ray Agan
Ralph Benton
Raymond Clark
J. C. Fink
J. R. Hamilton
Jim Hannemann
Jim Horner
M. G. Linson
C. L. Mondart
C. V. Roderick
Louis N. Wise

TASK FORCE NO. 2 -- RESEARCH AND PROGRAM DEVELOPMENT

MAJOR GOALS AND RECOMMENDATIONS

I. TO ESTABLISH A FAVORABLE CLIMATE FOR RESEARCH IN AGRICULTURAL EDUCATION.

Specific Recommendations for State Staffs:

A. Improve their understanding of and competencies in research.

B. Seek research funds from a wide range of sources.

C. Request the United States Office of Education to designate funds for research.

D. Consider using commercial researchers for appropriate projects.

II. TO COORDINATE RESEARCH ACTIVITIES IN AGRICULTURAL EDUCATION.

Specific Recommendations for State Staffs:

A. Establish a national advisory council for research in Agricultural Education.

B. Request the National Center for Advanced Study and Research in Agricultural Education in cooperation with the United States Office of Education and the American Vocational Association to collect and disseminate information relative to research in Agricultural Education that is planned, underway, and completed.

C. Request the National Center to collect and disseminate research findings from fields closely allied to Agricultural Education.

D. Request the National Center to continue its sponsorship of conferences for state staff personnel with common research interests and to conduct appropriate research.

E. Develop a comprehensive plan for meeting the research needs in Agricultural Education in each state.

F. Establish an advisory council for research in each state.

III. TO DEVELOP RESEARCH PRIORITIES IN AGRICULTURAL EDUCATION.

Specific Recommendation for State Staffs:

A. Identify essential aspects of major problem areas in Agricultural Education where research is needed.

I. Major Goal: TO ESTABLISH A FAVORABLE CLIMATE FOR RESEARCH IN AGRICULTURAL EDUCATION.

A. Specific Recommendation for State Staffs: Improve their understanding of and competencies in research.

1. Agenda for State Staff Action

a. Joint Staff

(1) Enroll in or audit regularly offered research methodology courses in the local university.

(2) Review completed research for methods applicable to current problems and situation.

(3) Plan staff meetings for the purpose of discussing research methodology with experienced research persons as consultants.

(4) Participate in National Center sponsored seminars or short courses in research methods for additional in-service training.

B. Specific Recommendation for State Staffs: Seek research funds from a wide range of sources.

1. Agenda for State Staff Action

a. Joint Staff

(1) Conduct a strategy meeting in which complete plans are developed to identify significant research projects, devise procedures, and assign responsibilities for making the direct approaches for securing financing.

(2) Contact agricultural businesses, legislatures, farm organizations, educational foundations, agricultural experiment stations for financial support of research.

b. Supervisors

(1) Furnish properly prepared examples of the benefits which completed research has brought to all phases of public school programs of Agricultural Education in the state, with particular emphasis on the phases which are likely to appear as significant to the donors.

c. Teacher Educators

(1) Prepare outstanding examples of completed research for distribution to prospective donors.

(2) Cite examples where efficient use was made of research funds.

(3) Prepare research proposals which clearly show a contribution to the improvement of the state and national economy.

(4) Prepare accurate, justifiable research budget proposals.

C. Specific Recommendation for State Staffs: Request the United States Office of Education to designate funds for research.

1. Agenda for State Staff Action

a. Joint Staff

(1) Conduct a strategy meeting in which complete plans are developed as to the specific things the members of the supervisory and teacher education staffs can do to aid the United States Office of Education in allocating funds.

b. Supervisors

(1) Furnish properly prepared examples of the benefits which completed research has brought to all phases of public school Agricultural Education in the state.

(2) Furnish properly prepared proposals for future research which clearly indicate needs and the benefits likely to accrue to the Agricultural Education program in the state's schools.

c. Teacher Educators

(1) Prepare outstanding examples of completed research for distribution to every significant group, including legislators.

(2) Prepare examples of efficient use of research funds for distribution to key individuals and groups.

(3) Prepare accurate, justifiable research budget proposals for the consideration of those charged with policy development.

(4) Prepare research proposals which clearly show a contribution to the improvement of the state and national economy.

D. Specific Recommendation for State Staffs: Consider using commercial researchers for appropriate projects.

1. Agenda for State Staff Action

a. Joint Staff

(1) Consider the possibilities of contract research when planning research projects.

(2) Budget funds for contract research and/or consultative research services.

II. Major Goal: TO COORDINATE RESEARCH ACTIVITIES IN AGRICULTURAL EDUCATION.

A. Specific Recommendation for State Staffs: Establish a national advisory council for research in Agricultural Education.

1. Agenda for State Staff Action

a. Joint Staff

(1) Establish a state advisory council for research.

(2) Help designate advisory council members through American Vocational Association Research Committee.

(3) Suggest items for discussion by national council.

(4) Help carry out plans developed by the national council.

b. Supervisors

(1) Help designate council member through American Association of Supervisors of Agricultural Education.

c. Teacher Educators

(1) Help designate council member through American Association of Teacher Educators in Agriculture.

d. Vocational Agriculture Teachers

(1) Designate council member through National Vocational Agriculture Teachers Association.

2. Agenda for National Center and United States Office of Education Action

a. National Center

(1) Provide initiative in organizing national research council.

(2) Assume appropriate responsibilities for coordinating and securing funds.

b. United States Office of Education

(1) Request heads of Vocational Division and Agricultural Education Branch to serve as ex-officio members of the advisory council.

(2) Designate research specialist as a member of the advisory council.

B. Specific Recommendation for State Staffs: Request the National Center for Advanced Study and Research in Agricultural Education in cooperation with the United States Office of Education and the American Vocational Association to collect and disseminate information relative to research in Agricultural Education that is planned, underway, and completed.

1. Agenda for State Staff Action

a. Joint Staff

(1) Provide the National Center with information on:

(a) Research being planned.

(b) Reports of progress.

(c) Research completed.

2. Agenda for National Center Action

a. Collect information by establishing a time schedule and developing procedures for receiving and summarizing information from the states.

b. Disseminate information by reporting periodically to states on research being planned, in progress, and completed. Consider the present system used by the Agricultural Experiment Stations, the United States Department of Agriculture, and the Illinois Vocational Agriculture Service.

C. Specific Recommendation for State Staffs: Request the National Center to collect and disseminate research findings from fields closely allied to Agricultural Education.

1. Agenda for State Staff Action

a. Joint Staff

(1) Keep informed on research being done in allied fields in the state. Review findings of such research and make selected studies available to the National Center.

(2) Share findings of pertinent research with the Center and other states.

b. Teacher Educators

(1) Cooperate with persons and/or agencies doing research in the allied fields. Channel appropriate findings to the joint staff. Involve graduate students in reviewing studies in the allied fields.

c. Specialists

(1) Cooperate with Agricultural Education personnel in planning research on common problems.

2. Agenda for National Center Action

a. Provide for such services in the projected budget for the Center.

D. Specific Recommendation for State Staffs: Request the National Center to continue its sponsorship of conferences for state staff personnel with common research interests and to conduct appropriate research.

1. Agenda for State Staff Action

a. Joint Staff

(1) Appoint staff members to attend conferences at the National Center when the proposed conference relates to the research interests of the state.

(2) Supply specialists and consultant service when requested by the National Center.

(3) Suggest research areas on which conferences are needed to the Director of the National Center.

E. Specific Recommendation for State Staffs: Develop a comprehensive plan for meeting the research needs in Agricultural Education in each state.[1]

1. Agenda for State Staff Action

a. Joint Staff

(1) Plan a comprehensive, long-range state research program.

b. Supervisors

(1) Initiate action needed for developing a state plan for research and actively participate in carrying out the plan.

(2) Provide means for acquainting teachers and administrators with pertinent research findings.

c. Teacher Educators

(1) Give leadership in developing staff research.

(2) Coordinate degree research with the state research program.

(3) Participate in regional and national research efforts.

d. Specialists

(1) Involve research specialists and consultants in other fields, such as vocational services, agricultural experiment station, public schools, colleges of education, and university statistical services.

F. Specific Recommendation for State Staffs: Establish an advisory council for research in each state.

1. Agenda for State Staff Action

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[1]See also: U. S. Department of Health, Education, and Welfare, Committee Reports, National Conference of Head State Supervisors of Vocational Education in Agriculture, Washington, D. C., May 16-27, 1960, OE-81005 (Washington: U. S. Government Printing Office, 1960), p. 61.

a. Joint Staff

(1) Assume initiative in organizing state research advisory council and determine groups to be represented.

(2) Cooperate in financing research programs.

(3) Designate members for the research council.

b. Supervisors

(1) Participate in research activities.

(2) Promote cooperative attitude among teachers and others in identifying needs, carrying out research, and applying findings.

c. Teacher Educators

(1) Provide leadership to degree and non-degree research.

(2) Secure specialized services and establish liaison with other research areas.

(3) Prepare materials based on research projects for use as guides for action.

d. Teachers

(1) Designate members for advisory council.

(2) Identify problem areas where research is needed.

(3) Put research findings into action.

II. Major Goal: TO DEVELOP RESEARCH PRIORITIES IN AGRICULTURAL EDUCATION.

A. Specific Recommendation for State Staffs: Identify essential aspects of major problem areas in Agricultural Education where research is needed.

1. Agenda for State Staff Action

a. Joint Staff

(1) Assign a joint staff committee to analyze in consultation with the staff large problem areas and identify individual research studies.[2]

(2) Invite graduate students to participate in joint staff meetings where individual research studies are identified and discussed.

(3) Coordinate research activities of staff members and graduate students who are working on individual studies within a large problem area.

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[2]The following areas were enumerated by participants in the 1963 National Seminar. No. 1 was indicates as the major research needed; otherwise, the order implies no research priority. Individual states should establish their own research priorities.

1. Agricultural Occupations, including farming: Number of job opportunities and salary levels; kinds of positions and clusters of agricultural competencies needed; levels of training needed; facilities needed for training; placement and supervised work experience. (See also: The National Center for Advanced Study and Research in Agricultural Education, Report of Research Coordination Conference on Agricultural Occupations, May 27-29, 1963 (Columbus, Ohio: The Ohio State University, 1963).)

. Instructors: Local needs studies; recruitment of students; multiple-teacher assignments.

3. Teacher Education: Recruitment of teachers; salaries of teachers; competencies needed by teachers for present and expanded programs; in-service and pre-service training of teachers; selection and training of special teachers.

4. Public Relations: Image of agriculture; benefits of vocational agriculture programs to communities; developing effective relationships.

5. Educational Programs in Agriculture: For dropouts, elementary grades, low-income groups, small schools; evaluation of programs; placement and follow-up (college and work); area programs; youth organization; results of regular vocational programs compared with manpower development type programs; guidance and counseling.

6. Curriculum and Methods: Agricultural mechanics; instructional materials; communication; programmed learning materials and team teaching; rural recreation; scheduling; small-group instruction; combined and separate for farming and other agricultural occupations; short-unit instruction.

7. Policy and Staff: Reimbursement possibilities (adult and summer program); advisory committees at all levels; staff organization.

8. Coordinated Agricultural Education Programs in Communities: Vocational agriculture; extension; other agencies and institutions.

TASK FORCE No. 3

EXPANSION AND EXTENSION OF PROGRAMS

Chairman: Herschel T. Lester

Recorder: Carl F. Lamar

Dale C. Aebischer
R. C. Butler
Joseph Clary
Paul J. Foster
John Lacey
Harry Nesman
J. R. Powell
C. V. Roderick
Obed L. Snowden
Jesse A. Taft
J. R. Warmbrod
Carl Westbrook
Samuel Whitaker
Archer L. Yeatts

TASK FORCE NO. 3 -- EXPANSION AND EXTENSION OF PROGRAMS

MAJOR GOALS AND RECOMMENDATIONS

I. TO EXPAND THE EDUCATIONAL OPPORTUNITIES OFFERED THROUGH VOCATIONAL AGRICULTURE TO BETTER SERVE THE AGRICULTURAL INDUSTRY.

Specific Recommendations for State Staffs:

High School Program

A. Develop instructional programs which will place a greater emphasis on the understanding of basic principles of agricultural science.

B. Emphasize work experience programs that will enable students to make application of the basic agricultural principles as well as to develop marketable skills.

C. Encourage the establishment of multiple-teacher departments, enabling the development of programs with greater scope and depth of training in all of the important agricultural areas.

D. Develop programs of Agricultural Education to meet the needs of everyone who desires to enroll.

E. Encourage youth programs that contribute to the attainment of the purposes of vocational education in agriculture.

Working Youth and Adults

F. Expand the young and adult farmer program to more adequately meet the needs of all individuals in these categories who can profit from such instruction and will participate.

G. Provide a sufficient number of competent instructors to adequately conduct the expanded program.

H. Plan and conduct year-round programs, including intensive units of specialized instruction, that give emphasis to the decision-making aspects of the vocation.

II. TO EXTEND VOCATIONAL AGRICULTURE TO SERVE UNMET EDUCATIONAL NEEDS WITHIN THE TOTAL AGRICULTURAL INDUSTRY.

Specific Recommendations for State Staffs:

A. Initiate and conduct research studies of agricultural occupations to obtain the basic information pertaining to job descriptions, training requirements, and employment opportunities that are needed to develop instructional programs.

B. Develop instructional programs, including suggested facilities and equipment for agricultural occupations for the following kinds of schools: High schools employing only one teacher of agriculture, high schools with multiple-teacher departments, schools in urban areas.

C. Develop appropriate supervised work experience programs for all students preparing to enter agricultural occupations.

D. Develop instructional programs for students who will continue professional and technical studies in agriculture.

III. TO PROVIDE ADEQUATE VOCATIONAL OFFERINGS IN AGRICULTURE FOR YOUTH AND ADULTS WITH SPECIAL NEEDS.

Specific Recommendations for State Staffs:

A. Provide training programs for unemployed and underemployed youth and adults.

B. Provide education and training for school dropouts.

C. Provide programs for handicapped youth and adults.

D. Provide Agricultural Education programs to meet the avocational needs of youth and adults.

E. Develop programs to train agricultural technicians at the post-high-school level.

I. Major Goal: TO EXPAND THE EDUCATIONAL OPPORTUNITIES OFFERED THROUGH VOCATIONAL AGRICULTURE TO BETTER SERVE THE AGRICULTURAL INDUSTRY.

High School Program

A. Specific Recommendation for State Staffs: Develop instructional programs which will place a greater emphasis on the understanding of basic principles of agricultural science.

1. Agenda for State Staff Action

a. Joint Staff

(1) Plan and implement a workshop dealing with the exploration of subject matter areas in which the core of basic principles can be developed.

(2) Make provisions for having the basic principles printed in attractive form for distribution to each vocational agriculture teacher in the state. Provision should be made for adding appropriate supervised experiences to fit local condition.

(3) Have the basic principles and related content approved as a suggested state program for high school vocational agriculture.

b. Supervisors

(1) Follow up the basic principles approach as an integral part of supervision.

c. Teacher Educators

(1) Teach workshop courses.

(2) Conduct short, intensive in-service workshops on the use of the basic principles approach for teachers throughout the state.

d. Specialists

(1) Check the basic instruction materials developed to verify their validity.

B. Specific Recommendation for State Staffs: Emphasize work experience programs that will enable students to make application of the basic agricultural principles as well as to develop marketable skills.

1. Agenda for State Staff Action

a. Joint Staff

(1) Conduct research to determine expanded needs, effectiveness of present programs, and more effective procedures.

(2) Maintain continuous program evaluation.

(3) Project for future programs.

(4) Provide in-service training for teachers in implementing new concepts in experience programs.

b. Supervisors

(1) Develop procedure for implementing more effective student experience activities.

(2) Give appropriate emphasis to experience programs in supervision, reports, and allotments of instructional time.

(3) Assist teachers in designing experience programs to meet the specific needs of individual students, taking into consideration the following:

(a) Interest, ability, and opportunity of the student.

(b) Motivating factors affecting the student.

(c) Goals of the student.

(d) Limitations of the student.

(e) Job opportunities in agriculture.

(4) Conduct workshops, conferences, and small group meetings for instructors dealing with planning, initiating, developing, and evaluating experience programs.

c. Teacher Educators

(1) Place adequate emphasis in pre-service and graduate programs on the competencies needed by the teachers to accomplish their responsibilities in developing effective student experience programs.

d. Specialists

(1) Provide technical information and materials essential for the development of student experience programs.

C. Specific Recommendation for State Staffs: Encourage the establishment of multiple-teacher departments, enabling the development of programs with greater scope and depth of training in all of the important agricultural areas.

1. Agenda for State Staff Action

a. Joint Staff

(1) Determine the need for additional multiple-teacher departments.

(2) Inform school administrators and vocational agriculture teachers of the need for specialized competencies in developing adequate programs.

(3) Provide financial incentive for developing multiple-teacher departments.

(4) Give leadership in developing schedules and teaching calendars and planning department programs to best utilize teachers' time.

b. Teacher Educators

(1) Acquaint present and prospective teachers with opportunities in teaching in specialized areas, such as mechanics, management, horticulture, crops, and livestock.

D. Specific Recommendation for State Staffs: Develop programs of Agricultural Education to meet the needs of everyone who desires to enroll.

1. Agenda for State Staff Action

a. Joint Staff

(1) Provide leadership in assigning a teacher in two or more schools when small enrollment does not justify a teacher in each school.

(2) Develop an area type program where students from several schools can come for vocational instruction.

(3) Develop a part-time arrangement where the vocational agriculture teacher would spend a part of the time in some other phase of the school program.

(4) Develop cooperative programs with other vocational services.

b. Teacher Educators

(1) Motivate teachers concerning the importance of serving in schools with small programs.

(2) Provide in-service training and workshop programs for teachers in developing adequate programs for small schools.

E. Specific Recommendation for State Staffs: Encourage youth programs that contribute to the attainment of the purposes of vocational education in agriculture.

1. Agenda for State Staff Action

a. Joint Staff

(1) Review the total program to determine the relative emphasis being given to different phases of the program and areas where adjustments should be made.

(2) Place more emphasis on instruction and less on activities in youth programs.

(3) Secure a proper balance by suggesting calendars of instruction that avoid duplication in teaching units which pertain to youth program activities.

(4) Develop activities that will contribute to the educational purposes of new programs in agriculture.

(5) Outline and encourage adherence to a plan whereby specific contest participation will be limited to a certain grade level each year.

(6) Insist on public relations programs that indicate youth organizations are a part of the over-all program of vocational education in agriculture and the high school.

(7) Limit membership and participation in youth programs to those enrolled in the high school program of vocational agriculture.

Working Youth and Adults

F. Specific Recommendation for State Staffs: Expand the young and adult farmer program to more adequately meet the needs of all individuals in these categories who can profit from such instruction and will participate.

1. Agenda for State Staff Action

a. Joint Staff

(1) Plan and conduct studies to determine potential needs for young and adult farmer instruction.

(2) Evaluate objectives, procedures, and results of present programs.

(3) Improve and modify techniques now used to meet the needs of expanded programs.

(4) Develop new approaches and techniques for conducting young and adult farmer instruction.

b. Supervisors

(1) Develop with school administrators an understanding of the need and responsibility for conducting educational programs for young and adult farmers through the public schools.

(2) Provide instructional programs for the various agricultural interest groups as reflected by community needs. These may include farmers, absentee land owners, business personnel with agricultural interests, horticulturists, foresters, and conservationists.

(3) Work for financial support at all levels to make a quality program possible.

(4) Provide adequate supervision, in-service training, and evaluation of local programs to insure constant improvement of instruction.

(5) Develop systems of record keeping and reporting which will make available essential information to justify continued support of this phase of the program.

c. Teacher Educators

(1) Assume major responsibility for conducting essential research in the young and adult farmer program.

(2) Provide adequate emphasis on young and adult farmer instruction in professional courses in Agricultural Education.

(3) Provide experience in all of the essential phases of young and adult instruction in practice teaching.

(4) Develop graduate programs which will encourage instructors to analyze experiences, evaluate procedures, and develop new techniques and approaches.

(5) Guide instructors in selecting high priority technical courses as a part of their graduate programs.

d. Specialists

(1) Increase the capabilities of instructors to teach farm management analysis, decision making, agricultural mechanics, and the other technical areas in agriculture through workshops, current materials, teaching aids, and direct counseling.

(2) Assist instructors in determining the appropriate level of instruction in various technical areas.

G. Specific Recommendation for State Staffs: Provide a sufficient number of competent instructors to adequately conduct the expanded program.

1. Agenda for State Staff Action

a. Joint Staff

(1) Determine teacher load through research and pilot programs.

(2) Determine policy regarding standards for teacher certification and approval.

b. Supervisors

(1) Assist administrators and teachers with acquainting boards of education with the need for more teachers.

(2) Promote released or scheduled time of teachers for adult education.

c. Teacher Educators

(1) Revise course content on pre-service level to emphasize adult education and young farmer education.

(2) Conduct in-service workshops for teachers and special teachers.

d. Specialists

(1) Provide specialists and resource persons to assist teachers in the technical phases of the courses.

H. Specific Recommendation for State Staffs: Plan and conduct year-round programs, including intensive units of specialized instruction, that give emphasis to the decision-making aspects of the vocation.

1. Agenda for State Staff Action

a. Joint Staff

(1) Plan and assist in conducting pilot programs for young and adult farmer classes, using promising techniques.

(2) Promote full-time adult instructors where justified.

b. Supervisors

(1) Assist teachers in planning year-round programs which will meet current needs, providing for intensive units of instruction in such areas as farm management, financing, marketing, soil and water management, forestry, and mechanics.

(2) Formulate and promote reimbursement policies that will encourage this type of young and adult farmer program.

II. Major Goal: TO EXTEND VOCATIONAL AGRICULTURE TO SERVE UNMET EDUCATIONAL NEEDS WITHIN THE TOTAL AGRICULTURAL INDUSTRY.

A. Specific Recommendation for State Staffs: Initiate and conduct research studies of agricultural occupations to obtain the basic information pertaining to job descriptions, training requirements, and employment opportunities that are needed to develop instructional programs.

1. Agenda for State Staff Action

See: The National Center for Advanced Study and Research in Agricultural Education, Report of Research Coordination Conference on Agricultural Occupations, May 27-29, 1963 (Columbus, Ohio: The Ohio State University, 1963).

B. Specific Recommendation for State Staffs: Develop instructional programs, including suggested facilities and equipment for agricultural occupations for the following kinds of schools: High schools employing only one teacher of agriculture, high schools with multiple-teacher departments, schools in urban areas.

1. Agenda for State Staff Action

a. Joint Staff

(1) Consider carefully the following recommendations for their application in each state.

(a) High schools employing only one teacher of agriculture.

i) Instruction at the ninth and tenth grade levels should include basic science and mechanics common to agricultural occupations, including farming. The instruction should emphasize production agriculture.

a) Supervised work experience programs should be an integral part of the instructional program. Such work experience programs may be provided through supervised farming programs, placement for farming experiences, and school land laboratories.

b) Instruction and work experience should give the students information and understandings needed in making wise decisions concerning their vocations.

c) Instruction and participating activities should be provided through youth organizations to further develop agricultural leadership, citizenship, and cooperation.

ii) Instruction at the eleventh and twelfth grade levels should include units of instruction common to farming and other agricultural occupations. Some examples of areas to be included are management, taxation, accounting, and agricultural mechanics. (It is assumed that in schools with limited enrollments students preparing for farming and students preparing for agricultural occupations will not be separated for classroom instruction.)

a) Specialized areas of instruction should be handled through small group and individual instruction in the classroom. Programmed instruction should be investigated as a possibility for providing instruction in specialized areas.

b) Specialized on-job training experiences should be provided.

iii) A desirable alternative for programs at the eleventh and twelfth grade levels would be to develop area schools, enabling students from small schools to be transported to a central point for specialized instruction.

iv) Existing programs in distributive education and diversified occupations may be used as an alternative method of providing specialized work experience.

v) The use of a school agricultural business laboratory should be explored as a means of providing work experience.

(b) High schools with multiple-teacher departments.

i) Instruction at the ninth and tenth grade levels should be the same as in the one-man department listed previously.

ii) Instruction at the eleventh and twelfth grade levels should be provided through separate courses for students preparing to enter agricultural occupations.

iii) Specialized work experience in agricultural occupations should be provided.

iv) Specialized work experience in agricultural occupations should be coordinated with existing programs in distributive education and diversified occupations.

v) Alternatives for providing work experience in small rural high schools listed earlier are applicable here.

(c) High schools in urban areas.

i) Programs should be limited largely to tenth, eleventh, and twelfth grades of senior high school.

ii) Basic courses in agricultural science and mechanics should be provided.

iii) Specialized courses should be provided for special areas of employment, such as horticulture, floriculture, landscaping, and turf management. Consideration should also be given to the development of special courses, such as meat cutting, fruit and vegetable marketing.

iv) Specialized work experience through school land laboratories, greenhouses, and nurseries should be provided.

v) Specialized work experience should be provided through on-job training.

vi) Detailed training outlines should be developed to facilitate and improve work experience programs.

C. Specific Recommendation for State Staffs: Develop appropriate supervised work experience programs for all students preparing to enter agricultural occupations.

1. Agenda for State Staff Action

a. Joint Staff

(1) Designate a supervisory staff member to be responsible for the initiation, development, and coordination of work experience programs at the state level.

(2) Establish cooperative relationships between the school and appropriate local businesses. (This should include the establishment of work experience programs designed specifically for the agricultural occupations and may or may not follow the organizational plan of existing distributive education and diversified occupations cooperative programs.)

(3) Establish local advisory groups to aid in the development of these programs.

(4) Provide in-service teacher training to better qualify teachers to supervise and coordinate these work experience programs. The long-range objective should be to provide specially trained teachers to supervise and coordinate these programs.

(5) Develop pilot programs to refine procedures for conducting work experience programs.

(6) Provide sufficient staff (supervisory and teacher education) to conduct research concerning program development and the evaluation of pilot work experience programs.

D. Specific Recommendation for State Staffs: Develop instructional programs for students who will continue professional and technical studies in agriculture.

1. Agenda for State Staff Action

a. Joint Staff

(1) Provide materials for pre-technical and pre-professional instruction, including reference lists, suggested resource people, and programmed instructional materials.

b. Supervisors

(1) Provide direction for improved programs for pre-technical and pre-professional courses.

(a) Training should provide basic principles and experiences in production agriculture.

(b) At the junior-senior level, when possible, supervised agricultural experience should be related to the student's specific agricultural field.

(c) Specialized instruction within classes should be related to the student's selected field. This could be programmed instruction.

c. Teacher Educators

(1) Offer in-service courses for teachers who are instructing pre-professional technician classes.

(2) Conduct needed research studies relating to teaching methods and materials.

III. Major Goal: TO PROVIDE ADEQUATE VOCATIONAL OFFERINGS IN AGRICULTURE FOR YOUTH AND ADULTS WITH SPECIAL NEEDS.

A. Specific Recommendation for State Staffs: Provide training programs for unemployed and underemployed youth and adults.

1. Agenda for State Staff Action

a. Joint Staff

(1) Cooperate with the United State Office of Education for training under ARA, MDTA, other agencies.

(2) Make local surveys throughout the state to determine locations for training centers.

(3) Obtain and train special teachers.

(4) Employ a coordinator to provide leadership for such programs.

(5) Develop curriculum materials to be used in teaching.

(6) Establish area school programs and provide adequate facilities and equipment.

(7) Request the funds needed to operate these programs.

B. Specific Recommendation for State Staffs: Provide education and training for school dropouts.

1. Agenda for State Staff Action

a. Joint Staff

(1) Develop a more adequate counseling and guidance service.

(2) Provide competent, trained personnel.

(3) Make surveys in cooperation with other vocational services to determine the number and educational needs of dropouts.

(4) Request legislation to raise the compulsory school attendance age limit to eighteen years old.

C. Specific Recommendation for State Staffs: Provide programs for handicapped youth and adults.

1. Agenda for State Staff Action

a. Joint Staff

(1) Draft and seek the necessary state legislation.

(2) Employ specialists on the state staff who will give proper leadership and coordination to this area.

(3) Train special teachers to work with the handicapped.

(4) Provide on-the-job training for handicapped youth and adults.

(5) Cooperate with the Rehabilitation Service in offering training for handicapped students.

(6) Operate summer agricultural camps.

(7) Request needed funds.

(8) Organize and use advisory committees.

D. Specific Recommendation for State Staffs: Provide Agricultural Education programs to meet the avocational needs of youth and adults.

1. Agenda for State Staff Action

a. Joint Staff

1) Develop suggested courses in agriculture of a non-vocational nature designed to provide a general understanding and appreciation of the agricultural industry, to make students more intelligent consumers of agricultural products, and to foster a better understanding and appreciation of the role of agriculture in modern life.

(2) Recommend that these non-vocational courses be offered at the following levels: Upper elementary, junior or senior high school, adult.

(3) Suggest instruction may vary in length from single units to a year.

(4) Suggest that courses at the secondary level should be taught by fully qualified agriculture teachers or specialists.

(5) Develop individual course units in agricultural science for use in the elementary and secondary school programs.

(6) Use school land laboratories for educational tours and observations.

(7) Develop resource lists of agricultural educational materials which can be used in elementary and secondary classes to enrich instruction in agriculture.

(8) Propose that general education in agriculture or life science courses be made available to elementary teachers.

(9) Make provisions for this instruction in the State Plan for Agricultural Education.

(10) Organize and use advisory committees.

(11) Use public relations media to promote avocational courses.

(12) Provide correspondence-school type of instruction.

(13) Conduct in-service activities for teachers.

b. Supervisors

(1) Stimulate and encourage experience programs at the elementary school level in gardening or other biological studies: Small plots, greenhouse activities, pet care, and lawn care.

c. Teacher Educators

(1) Develop and promote a college course in agriculture for elementary teachers.

E. Specific Recommendation for State Staffs: Develop programs to train agricultural technicians at the post-high-school level.[1]

1. Agenda for State Staff Action

a. Joint Staff

(1) Determine the need for programs to train such persons as:

(a) Agricultural research technicians

(b) Agricultural mechanics technicians

(c) Agricultural laboratory technicians

(d) Field production technicians

(e) Agricultural sales technicians

(f) Agricultural service technicians (public agencies)

(g) Agricultural business technicians

(h) Veterinary technicians

(i) Industrial production technicians

(2) Establish advisory committees from the areas to be served.

(3) Determine the offerings needed in the training programs.

(4) Develop courses of instruction and curricula.

(5) Recruit prospective students interested in the programs.

(6) Develop programs for study and work experiences.

(7) Provide for systematic placement and follow-up.

The following are some general suggestions for state staff action for the area of providing adequate vocational offerings in agriculture for youth and adults with special needs.

(1) Accept the responsibility for initiating and implementing programs to serve youth and adults with special needs.

(2) Utilize state staff specialists to provide leadership and coordination of activities within the program and with other key groups.

(3) Draft and seek necessary state legislation and/or policies that will authorize the development of these programs.

(4) Make provisions for instruction through the State Plan.

(5) Organize and use advisory committees.

(6) Recruit and train special teachers as needed.

(7) Make arrangements for the necessary facilities and special equipment. (This may include school land laboratories.)

(8) Make effective use of organizations associated with the agricultural occupations for which the training is to be provided.

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[1]See also: Jerry J. Halterman, Technicians in Agriculture, A Report of a Research Project in Agricultural Technology (Sacramento: California State Department of Education). G. Allen Sherman, Technicians in Agriculture, Training Programs for Agricultural Public Service Technicians (Sacramento: California State Department of Education).

(9) Request approval and support from policy-making boards for the programs.

(10) Keep the public informed.

(11) Develop and disseminate instructional materials.

(12) Utilize correspondence school courses when advantageous.

(13) Cooperate with federal, state, and local agencies, such as USDA, HEW, Department of Labor.

(14) Develop and/or make available appropriate instructional materials.

(15) Utilize area vocational schools when available.

(16) Prepare and submit budget requests.

(17) Make surveys to determine locations for needed programs.

(18) Evaluate and redirect as needed.

TASK FORCE NO. 4

EFFECTIVELY ASSISTING TEACHERS

Chairman:	M. M. Botto
Recorder:	R. R. Price
	Doyle Beyl Ben Dilworth Ramsey Groves W. F. Hickson Ken Mitchell G. C. Norman Josiah Phelps C. E. Richards J. W. Warren
Consultants:	Bert Brown Floyd Johnson A. J. Paulus

TASK FORCE NO. 4 -- EFFECTIVELY ASSISTING TEACHERS

MAJOR GOALS AND RECOMMENDATIONS

I. TO ASSIST TEACHERS IN MAINTAINING A POSITIVE ATTITUDE TOWARD AGRICULTURE AND AGRICULTURAL EDUCATION.

Specific Recommendations for State Staffs:

A. Promote professional self-improvement among teachers.

B. Encourage and support an active vocational agriculture teachers association.

C. Assist teachers in maintaining good relations with school administrators.

D. Assist teachers with their public relations programs.

E. Assist teachers in recognizing and carrying out their role of leadership in counseling and guidance.

II. TO AID TEACHERS IN DEVELOPING LOCAL PROGRAMS.

Specific Recommendations for State Staffs:

A. Evaluate present programs.

B. Redirect present programs in Agricultural Education as needed.

C. Develop appropriate pilot programs.

D. Select programs which have been proven worthwhile and expand these to centers where needed.

III. TO ASSIST TEACHERS IN DEVELOPING COMPETENCIES NEEDED FOR EFFECTIVE TEACHING.

Specific Recommendations for State Staffs:

A. Determine areas in which teachers need assistance.

B. Provide aid in areas needed.

C. Provide teachers with instructional aids and materials and instruction in their use.

D. Assist teachers in enriching their teaching through the effective use of specialists and resource persons.

E. Assist teachers and administrators in local schools in determining needs for and acquisition of facilities, equipment, and teaching materials.

F. Direct graduate studies toward functional research to increase the competency of teachers.

G. Improve programs of student teaching by including ample training in new areas as well as in the traditional areas of the program.

H. Expand services to beginning teachers to provide assistance in developing and implementing teaching activities in all areas--traditional and new.

I. Major Goal: TO ASSIST TEACHERS IN MAINTAINING A POSITIVE ATTITUDE TOWARD AGRICULTURE AND AGRICULTURAL EDUCATION.

A. Specific Recommendation for State Staffs: Promote professional self-improvement among teachers.

1. Agenda for State Staff Action

a. Joint Staff

(1) Plan and conduct advanced credit courses.

(2) Encourage teacher participation in advanced professional and technical agricultural courses.

(3) Provide for a satisfactory leave program for advanced study in the field.

(4) Promote and provide scholarships and fellowships for advanced work.

(5) Promote incentive salary provisions for advanced credit.

(6) Encourage and work with the professional committee of the vocational agriculture teachers association.

(7) Provide a good example of continuing professional growth by state staff members' own participation in suitable activities.

B. Specific Recommendation for State Staffs: Encourage and support an active vocational agriculture teachers association.

1. Agenda for State Staff Action

a. Joint Staff

(1) Involve teachers association leaders in planning programs and activities (district, area, state).

(2) Assist officers in planning for annual programs and meetings (state and national).

(3) Provide liaison service between professional associations.

(4) Recognize outstanding teachers for their accomplishments.

(5) Encourage teacher membership and participation in other professional teacher organizations.

C. Specific Recommendation for State Staffs: Assist teachers in maintaining good relations with school administrators.

1. Agenda for State Staff Action

a. Joint Staff

(1) Involve school administrators in program planning on state level.

(2) Review Agricultural Education programs with small groups of administrators.

(3) Assist local administrators in planning and conducting progressive programs in Agricultural Education.

(4) Recognize outstanding administrators for their contributions to Agricultural Education.

(5) Utilize administrators in support roles in programs of public relations and improvement of teachers.

(6) Include administrators on the state vocational agriculture advisory committee.

(7) Promote district teacher-administrator dinners.

D. Specific Recommendation for State Staffs: Assist teachers with their public relations programs.

1. Agenda for State Staff Action

See Task Force No. 1 -- II-A, Page 25.

E. Specific Recommendation for State Staffs: Assist teachers in recognizing and carrying out their role of leadership in counseling and guidance.

1. Agenda for State Staff Action

See Task Force No. 1 -- II-B, Page 26.

II. Major Goal: TO AID TEACHERS IN DEVELOPING LOCAL PROGRAMS.

A. Specific Recommendation for State Staffs: Evaluate present programs.

1. Agenda for State Staff Action

a. Joint Staff

(1) Determine areas on the state level that should be evaluated and establish priorities.

(2) Determine criteria for evaluating local programs.

(3) Develop evaluation instruments.

(4) Assist in state and local evaluations.

(5) Inform and involve state and local school administrators in evaluation.

(6) Help interpret results and provide leadership in redirection where needed.

b. Supervisors

(1) Develop a philosophy and awareness of the values of systematic evaluation on the part of teachers and administrators.

(2) Provide instruction in use of instruments.

(3) Involve local leadership in analysis of evaluation.

B. Specific Recommendation for State Staffs: Redirect present programs in Agricultural Education as needed.

1. Agenda for State Staff Action

a. Joint Staff

(1) Employ additional staff personnel to provide leadership for extended and/or new programs.

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[1]See also: Report of Workshop for State Supervisors of Vocational Agriculture, June 18 to 29, 1962, State Supervision Series No. 4 (Columbus, Ohio: Department of Agricultural Education, The Ohio State University, 1962).

(2) Survey communities on needs for Agricultural Education, including the possibilities for new programs (examples may be off-farm occupations, combinations with Distributive Education and diversified occupations). Community to mean school district, county, state, or region, as applicable.

(a) Develop survey form to learn present status of instruction as it applies to Agricultural Education needs of all ages and groups.

(b) Work with vocational agriculture teachers in small groups to acquaint them with the survey.

(c) Inform people of the plan and enlist their support.

(d) Summarize and interpret survey.

(3) Work with the agriculture instructor, school administrator, and other local leaders in developing local programs to meet community needs.

(4) Provide material and assistance needed by new local programs.

(a) Include details of financing, people to be served, teaching guides, suggested facilities and equipment, and expected outcomes.

(b) Offer specialized assistance to teachers in developing competence needed by new programs.

C. Specific Recommendation for State Staffs: Develop appropriate pilot programs.[2]

1. Agenda for State Staff Action

a. Joint Staff

(1) Select pilot centers, considering such factors as personnel, facilities, financing, desires and needs of school and community.

(2) Develop research design for evaluating the pilot program and designate a project coordinator.

(3) Supervise and direct pilot programs.

(a) Visit programs periodically and as requested.

(b) Engage services of specialists, such as special staff personnel, industry, college, and university staff members, for technical advice and direction.

(c) Keep local administrators informed of progress.

(d) Summarize results.

(4) Evaluate the results of pilot program.

(a) Complete research on pilot programs.

(b) React to reports by pilot center coordinators, school administrators, and local leaders at a joint staff meeting.

(c) Publish results of the pilot program.

D. Specific Recommendation for State Staffs: Select programs which have been proven worthwhile and expand these to centers where needed.

1. Agenda for State Staff Action

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[2] Ibid., p. 70.

a. Joint Staff

(1) Distribute results of successful pilot programs.

(2) Encourage teachers, administrators, and board members to visit successful pilot programs.

(3) Work with interested centers to aid in establishing additional programs in centers where needed.

(4) Provide in-service training needed to effectively disseminate the innovation.

III. Major Goal: TO ASSIST TEACHERS IN DEVELOPING COMPETENCIES NEEDED FOR EFFECTIVE TEACHING.

A. Specific Recommendation for State Staffs: Determine areas in which teachers need assistance.

1. Agenda for State Staff Action

a. Joint Staff

(1) Survey teachers to secure their opinions on needed professional improvement activities.

(2) Survey needs of students served by vocational agriculture (including post-high school) as a further basis for planning in-service education activities for teachers.

(3) Study job opportunities in agriculture to determine competencies needed by teachers for new and expanded programs.

B. Specific Recommendation for State Staffs: Provide aid in areas needed.

1. Agenda for State Staff Action

a. Joint Staff

(1) Organize and conduct needed workshops, conferences, and short courses. Examples:

(a) Department and class organization.

(b) Course content.

(c) Professional and technical skills.

(d) Basic principles in science related to agriculture.

(2) Secure assistance of other vocational services.

(3) Secure assistance of both college and commercial technical specialists.

C. Specific Recommendation for State Staffs: Provide teachers with instructional aids and materials and instruction in their use.

1. Agenda for State Staff Action

a. Joint Staff

(1) Establish teaching aids and materials laboratory. Example: Illinois Vocational Agriculture Service.

(2) Coordinate establishment with other existing materials laboratories. (States may wish to consider cooperative efforts in developing and sharing materials.)

(3) Develop and provide comprehensive instructional materials.

(4) Expand budget to make ample provision for the duplication and distribution of materials to all teachers.

(5) Assist local teachers in planning for team teaching and sharing instructional materials and resources in the local school to enrich the vocational offering.

(6) Plan and implement a series of workshops for teachers to develop competencies in the most effective use of instructional materials.

(7) Acquaint prospective teachers with instructional materials and their proper use.

(8) Employ additional staff members to give leadership to this area.

(9) Utilize staff members and facilities of other departments in the college.

(10) Acquaint government agencies and commercial concerns with needs for instructional materials in vocational agriculture.

D. Specific Recommendation for State Staffs: Assist teachers in enriching their teaching through the effective use of specialists and resource persons.

1. Agenda for State Staff Action[3]

a. Joint Staff

(1) Provide needed training and materials on the proper use of the resource persons and specialists in both pre-service and in-service training programs.

(2) Coordinate and make available the use of personnel from agricultural agencies, commercial concerns, and other school and vocational services.

E. Specific Recommendation for State Staffs: Assist teachers and administrators in local schools in determining needs for and acquisition of facilities, equipment, and teaching materials.

1. Agenda for State Staff Action

a. Joint Staff

(1) Develop and make available to school administrators and teachers comprehensive lists of supplies, facilities, and equipment needed for effective teaching in each area of vocational agriculture.

(2) Cooperate with local administrative units in providing adequate budgets for procuring needed supplies, facilities, and equipment.

F. Specific Recommendation for State Staffs: Direct graduate studies toward functional research to increase the competency of teachers.

1. Agenda for State Staff Action

a. Teacher Educators

(1) Require that all proposed graduate research studies be reviewed and approved by a committee to increase their functional application.

(2) Make available the summary and recommendations from each graduate study to each teacher of agriculture within the state.

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[3]See also: Task Force No. 1 -- I-B, Page 20.

a. Joint Staff

(1) Distribute results of successful pilot programs.

(2) Encourage teachers, administrators, and board members to visit successful pilot programs.

(3) Work with interested centers to aid in establishing additional programs in centers where needed.

(4) Provide in-service training needed to effectively disseminate the innovation.

III. Major Goal: TO ASSIST TEACHERS IN DEVELOPING COMPETENCIES NEEDED FOR EFFECTIVE TEACHING.

A. Specific Recommendation for State Staffs: Determine areas in which teachers need assistance.

1. Agenda for State Staff Action

a. Joint Staff

(1) Survey teachers to secure their opinions on needed professional improvement activities.

(2) Survey needs of students served by vocational agriculture (including post-high school) as a further basis for planning in-service education activities for teachers.

(3) Study job opportunities in agriculture to determine competencies needed by teachers for new and expanded programs.

B. Specific Recommendation for State Staffs: Provide aid in areas needed.

1. Agenda for State Staff Action

a. Joint Staff

(1) Organize and conduct needed workshops, conferences, and short courses. Examples:

(a) Department and class organization.

(b) Course content.

(c) Professional and technical skills.

(d) Basic principles in science related to agriculture.

(2) Secure assistance of other vocational services.

(3) Secure assistance of both college and commercial technical specialists.

C. Specific Recommendation for State Staffs: Provide teachers with instructional aids and materials and instruction in their use.

1. Agenda for State Staff Action

a. Joint Staff

(1) Establish teaching aids and materials laboratory. Example: Illinois Vocational Agriculture Service.

(2) Coordinate establishment with other existing materials laboratories. (States may wish to consider cooperative efforts in developing and sharing materials.)

(3) Utilize supervisors as consultants in helping identify functional research needs.

G. Specific Recommendation for State Staffs: Improve programs of student teaching by including ample training in new areas as well as in the traditional areas of the program.

1. Agenda for State Staff Action

a. Joint Staff

(1) Extend criteria used in selection of student teaching centers to insure training in new as well as traditional areas.

b. Teacher Educators

(1) Revise evaluation of student teaching experiences to emphasize experiences in the new areas of the program.

H. Specific Recommendation for State Staffs: Expand services to beginning teachers to provide assistance in developing and implementing teaching activities in all areas --traditional and new.

1. Agenda for State Staff Action

a. Joint Staff

(1) Add staff personnel needed to provide leadership in the new areas.

(2) Designate responsibility for beginning teacher services and provide time and budget needed for an effective program.

(3) Provide graduate credit to teachers participating in the state beginning teacher program.

(4) Provide a minimum of two years of beginning teacher services.

(5) Evaluate beginning teacher program to insure that needed assistance is provided in all areas.

PART III

PRESENTATIONS

BY THE

CONSULTANT STAFF

YOUR NATIONAL CENTER - A NEW RESOURCE TO THE PROFESSION

by
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Chairman, Advisory Committee, National Center
and
Professor, Agricultural Education
University of Georgia

It is with a great deal of pleasure that I am allowed to participate in the launching of the National Center for Advanced Study and Research in Agricultural Education. Although the Center has been in operation a few months this is the first national effort we have sponsored and the response has been most gratifying to all. I regard this meeting as a fitting climax to a long and arduous journey which began several years ago.

This seminar actually signals the realization of two significant goals--one earnestly sought and the other a serendipitous windfall. The first goal, of course, was the establishment of this center and the program inherent in it as a new tool or resource to our profession. This I would like to talk more about later.

The second goal I value so highly I would like to emphasize first--the unification of our professional leadership and influence in a concerted nationwide effort for the over-all advancement of vocational education in agriculture. I suspect this single accomplishment will have repercussions which will be felt throughout our group for a long time in the future. We undertook the establishment of this National Center with our forces divided--some wanted a center while others questioned its need. Some few actually opposed it for one reason or another. Before the project was completed, we achieved almost complete unanimity within our ranks. Everybody joined in the effort. In fact, I do not recall asking a single member of our profession for help which we did not receive immediately and wholeheartedly. I am sure the feeling of good will and mutual respect generated through this effort will have a wholesome effect on other efforts we undertake. Incidentally, I believe our ability to concentrate our forces on a chosen goal also gained for us increased respect from leaders outside our professional family.

My first contact with this idea was during the winter of 1959 when Dr. W. T. Spanton showed me a rough draft of the proposal. During that spring, the idea was raised in regional conferences and many features of the original proposal were found to be objectionable. During the next two years, these features were gradually brought into alignment with the best thinking of all concerned until in the spring of 1961 all regional conferences reported an almost unanimous directive for the committee to proceed with the undertaking. Your AVA committee on the proposed center was delighted at the number of fine institutions which expressed an interest in having their campus chosen as the site of the center when an initial survey was made. In July, 1962, your committee finally decided, after much study, to accept the Ohio State University proposal from several excellent ones which were officially presented for consideration.

In August, 1962, a committee met here with Ohio State University officials and formally entered into an agreement to locate the center on this magnificent campus. I do not believe I ever sat with an administrative group which impressed me more. They had vision coupled with both enthusiasm and a willingness to work out administrative details to make the vision a reality. Our committee felt that we left here after that meeting with a tremendous stride having been made toward the ultimate realization of our dreams. May I say in passing that the Ohio State University people and those in the Ohio State Department of Education have already done far more than our committee dared to ask of them. May I also say we have been pleased with the leadership brought to the project by Bob Taylor whose designation as Director of the Center was approved at the above meeting.

But my point remains--we've come a long way together and our profession is stronger because of it. Incidentally, under the heading of extra benefits which accrued along the way has been the strength added to our group when the National Association of State Directors, the National Association of Chief State School Officers, and the National Association of Land-Grant Colleges and Universities appointed outstanding representatives to serve as members of our advisory committee. These men have added prestige to our cause.

And now to look at the Center. It is a fledgling program - no doubt about it! But it has life and vitality about it and is full of promise of things to come. This is a tool which will become sharper through use.

Vocational education in agriculture is an illustration of the great potential bound up in individual drive. But in this instance, the individuals involved have been individual

state programs. Some have flourished mightily and have blazed new trails on the horizon. Frontiers have been opened up, but we have always lacked agreement on what our goals really are and what procedures are best to achieve them. We've needed a strong, guiding force which could unify our efforts and abilities to hew out a program which would make vocational agriculture have real meaning to all people wherever it was a part of public education. We have survived this period of establishment as an integral part of public instruction, but in the process we may have been lulled into a false sense of security.

As we approach the beginning of our second-half century of effort the need for updating, adjusting, even re-orienting our program cries out! No longer can we in an individual state go it alone. We need to pool our best thinking from throughout the states and spice it with the best from other fields in the projection of programs geared to today's needs.

And there, gentlemen, is your Center--fledgling though it may be. We have the machinery for doing just about everything we need to prepare state leadership for the job of planning and implementing state and local programs which reflect the best thinking in the entire field of education. We need only to put the machine to work and keep it operating until we have hammered out the kinds of programs which will contribute to the solution of our current mire of problems.

This seminar which we are beginning today is only one example of what we can do for ourselves--even though it is an extremely good example. We have representatives of 35 states here sitting down together sharing as well as testing one another's thinking and experiences while feasting on the offerings of some of the nation's great educational leaders. No effort will be made to mold a single pattern or approach. We will strive to study our problems objectively, identify contributing factors, and propose solutions for group testing. We will invite inter-disciplinary probing of all offerings. The objective is that each of us can return to his home state intellectually fortified and technically better prepared to bring to bear on local problems the techniques we have found worthwhile here. Of course, it is nice that graduate credit is available, but really the experience is what is most worthwhile, in my estimation.

May I point out that such seminars as this do not necessarily have to be confined to the national level. We can use this Center to plan and develop similar programs as needed at the regional and sub-regional level. Each of us should begin thinking now of ways in which this Center can serve our profession. In addition to seminars let us continue to think of such things as:

1. Workshops in specific problem areas
2. Conferences in specific areas, i.e., research
3. Orientation programs for workers coming from or going into other countries
4. Graduate degree programs
5. Post-doctoral study programs
6. Etc.

We might sum it up by saying that this Center could be made to serve us in an almost unlimited capacity. It is ours to use as needed. Along with it goes the responsibility for making it serve our profession to maximum capacity.

RESPONSIBILITIES OF THE PUBLIC SCHOOLS FOR VOCATIONAL EDUCATION

by
Benjamin C. Willis
General Superintendent of Schools, Chicago
and
Chairman, President's Panel of Consultants
on Vocational Education

The American commitment to universal public education is as old as is the Nation's commitment to Federal Union of the States. Indeed, a Martian could follow the course of our national development were he to read only a comprehensive and complete history of education. In this history, industrial education, with all of the various names that it has carried since its inception as manual training, has contributed much and has helped to shape the history.

We educators have permitted our semantic differences to suggest that we accept fragmentation of the total educational program. Such names as industrial education, vocational education, technical education, general education, business education, college preparatory programs, and non-college preparatory programs, all of which we understand within the professions and use for the most part with precision, bewilder the general public and leave them with false impressions. As a result certain controversies regarding what are appropriate programs and what is creditable education and what is not have wasted much energy while more fundamental issues waited to be resolved.

The main goal and the American dream for education has been that through it young people may grow into maturity with the capability to use their full powers, to be productive citizens, and to find both intellectual and aesthetic enjoyment. To segment the total educational program and attach relative weights to each is to miss the point. It is also to create not only factions but inferiority complexes; not only pressures but private preserves. Therefore, in addressing myself to the general subject of industrial or vocational education I can do so only by keeping it in the context of our total national purpose and our total educational program.

The progress of elementary and secondary education in this country is interesting to trace. Our advances have appeared to come in spurts alternated with unremarkable periods. Just a little more than sixty years ago, education in America enjoyed such a decisive spurt. Close to the turn of the century numerous new programs and experimentations were undertaken. This was the period of the introduction of special education, and of manual training. This is the period that began the great growth of the American high school, perhaps America's most distinctive educational contribution to the world. Shortly after the twentieth century began, we saw the introduction of psychological testing, tentative and exploratory only at that point and subject to skepticism.

We saw the hesitant introduction of school guidance programs, and the beginning of effective compulsory education through the laws of the various states. Then America moved into a World War; from a World War into a period of withdrawal from international affairs and of concentration upon economic growth; from there we moved into a gigantic and enervating depression; and from that to the most demanding of all, World War II. Little lay attention was paid to the growing needs of and demands upon education during this time. It was not until after the conclusion of World War II that America again turned its attention to the needs of its public school system. For a period of approximately a quarter of a century, American public education was permitted to drift and to travel on its own momentum. This is not to say that new ideas were unexplored or that new programs were not undertaken. Old programs were adapted to meet the changing times but for the most part all of this was undertaken by the professionals with little public interest evidenced.

Vocational education was one of the new programs which during this period of time expanded on a national scale, following introduction of the Smith-Hughes Act in 1917. However, quite characteristically for the experimentation of the time, the vocational education programs moved into old buildings rather than into new ones. Then with a toe hold in the educational program, vocational education also began to travel on the initial momentum.

Changing Times

It was not until approximately ten or twelve years ago that America awoke to the fact that it had been neglecting its educational program and its school building program for a quarter of a century. The first realization came to us when the children of the first postwar high birth rate year walked up the steps of the schools to enter kindergarten or first grade. Even this was, at the time, considered to be only a temporary situation. We talked

about the tidal wave of children moving from first grade to second grade, then to third grade and so on, a bulge in the even flow of children through school. We spoke as if all we had to do was to sustain single instances of pressure and things would go back to normal thereafter. How wrong we were we soon discovered, and America entered upon a gigantic school building program concentrating mainly on the elementary grades. The time has come now when these elementary schools' graduates are walking up the steps of the high schools; their younger brothers and sisters will continue to follow them and in a few years their children will follow them.

The school is not the same today as when we were in school; nor will it ever be like that again. The school is not the same because the school population is not the same. Our counterparts are all in schools today, but so are the counterparts of the boys and girls who started to school with us and who dropped out along the way.

The school is not the same today because America is not the same today. Despite the fact that there is nothing so constant as change, the acceleration in the character of the changes in American life in the last decade bear little resemblance to the changes in our childhood. Public education neither can nor does ignore these changes, but evaluation of our programs and constructive experimentation must do more than mere reactions to change. Educators as much as financiers and diplomats and industrialists must look far to the future and imagine what the world will be like and what its people are going to meet years in the future.

Let us look to the social changes that affect our culture and so both impinge upon the school and require responsiveness from it. The first of these is the changing pattern and the dominance of urban living. The urbanization of our country has currently been somewhat in advance of the urbanization of many other countries of the world but they too are catching up rapidly. Let us not forget that the most populous cities in the world are not American cities; they are Japanese and English.

Closely related to the urbanization of this country, and indeed depending upon it, is the second social change: the extraordinary, persistent mobility of people today. It is all very well to say that Americans have always been a mobile people or to point to the westward movement which carried our people and our flag from one ocean to the other. There have always been those restless ones whose eyes remained upon the horizon and who moved from place to place with but short sojourns in any one. However, perpetual mobility was not the basic pattern; homesteading was the basic pattern. People moved to better themselves but they found this betterment, customarily, and settled down. Today our people are constantly on the move. It has been estimated that the average family moves every five or six years. Some people virtually commute from one location to another. In my own city of Chicago it is not uncommon at all for some children to enroll in September and withdraw within the month to travel several hundred miles to a spot called "home" and then in a few weeks to be back in a Chicago school only to take up migration again with the advent of open weather. The automobile and the concrete highway have put all points in the country within easy reach of nearly any person whose eyes are on the beckoning road.

The third element influencing our extraordinary social changes is to be found in our advancing technology. Whole new areas for productivity and new occupations arise daily. Technology has in fact forced us into our mobile and urbanized pattern of life. Nor is technology the discreet possession of the United States. Some of the most intricate mechanical toys come from Japan; one of the largest steel mills in the world is located in India; and the two largest oil refineries are located in the Netherlands Antilles.

Technology is the fruit of education. Let us remember it is also the seed for education. The social forces which have brought us to where we are today will influence where we go tomorrow.

We have now the means for better predictions than we had in the past. Education must take these predictions seriously, particularly those which pertain to the population explosion and to the trends in employment. Both of these predictions place heavy responsibilities upon education and educators, and upon the public for understanding and support. One of the manifestations of our changing way of life is to be found in the persistence of a high rate of unemployment at the same time that we have a high rate of productivity and a growing economy. Each time we have had a recession or a technological increase in unemployment, the upswing in economic growth has not reduced our unemployment proportionately. We appear to be developing a core of unemployment and unemployable young people and adults.

In this regard if the predictions are correct, the prospects are clear. The predictions indicate that the growth in employment opportunities will come among the professional,

technical, and managerial groups and among the clerical and skilled workers in our economy. A steady decline can be expected in the opportunities for the unskilled and the semi-skilled, and in farm opportunities. These are ominous predictions, if one is realistic about the range of ability of persons in the total population for whom self-sustaining work should be available. The predictions, however, do provide the basis for us to plan and to implement a total approach to the problem of skill development that could leave our prior efforts far behind in boldness or accomplishment.

Challenges to Education

Thus do the population growth, the mobility of our people, the urbanization of our country, and the technological advances pose serious challenges to education. There are, in addition, two other challenges, I wish to mention.

The first of these is the two-pronged international challenge: that of the emerging nations and that of the economic growth and educational effort among the older countries of the world. We seldom think of comparing America of two or three hundred years ago to the emerging nations of today; yet we, too, were once a country striving for political and economic and cultural status in the world. We were marvelously fortunate both in the timing of our emergence as a nation and in our antecedents. Our problem was the problem of the wilderness and the frontier in a new land. Our problem was the problem of assimilation of many peoples of different national customs and various languages. We had not only land and people and freedom and schools; we also had time.

The emerging nations today are not so fortunately situated in this regard. Jet airplanes land today beside fields where the ox and the wooden plow turn up the soil for a new planting. Television and shoes are coming simultaneously to the people of Egypt. The radio and the primer are moving together into the swamps of the Cambodia. But let no one think that the nations will not emerge. Let no one think that they are not going to make the same terrific efforts in education that they are making in politics and economics, catapulted though they may be from primitive life to the sophistication of the mid-twentieth century. Some of these days we shall awake to find them even with us. From the standpoint of our position in the world, we must examine our educational program and consider the full scope that it can attain. We must do this because the strength of our country rests upon the competence of each individual. The potential of the individual is the highest and more compelling motive for educational efforts if we really believe, in the worth and dignity of every individual.

National greatness is not an element but a compound in which the human elements of capability and creativity and vision and leadership are predominant. These are individual not mass characteristics. Thus it is to the potential of the individual that education primarily addresses itself. Here again if we infer national history from the history of education we see how the development of our educational program has reflected the development of the importance of the individual during the century of industrial evolution. In a society that was largely non-technical and in which sparsity rather than density of population was dominant, the educational program could be limited in scope, but not today in a technological and densely populated society. To a very high degree the responsibility of the school is now, as it always has been, to teach those things which the home is unable to teach. If we look at our educational responsibilities from this historical perspective we see quickly why the high school, junior college, and colleges have broadened their courses of study and become comprehensive. Education has enabled the common man to become uncommon and the entire citizenry to achieve as well as to desire a high educational level.

Now let us look at this citizenry. Its present average school attainment lies somewhere between ten and twelve years. To achieve such an average the base line must be substantial and the upper limit considerable. Money is no longer the criterion for acquiring at least twelve and in many instances fourteen to sixteen years of education. Family desires no longer dictate whether the child is to remain in school until his sixteenth or eighteenth birthday, depending upon the compulsory education limits in each state. Society has dictated in this particular. As a result we have today virtually every youth in school from the time he is six until he is sixteen and in some instances for a longer period.

No other country heretofore has attempted anything on this scale, and we have managed it only because we accepted the concept of dignity in individual differences and have learned to make distinctions. One of the first distinctions which has enabled us to retain more children in school longer has been the differentiation between those children able to carry the normal work of the school and those identified as educable but mentally handicapped. Special programs have made possible at least a minimum of academic competence among these

children who probably represent approximately five per cent of the age group. In recent years, we have been experimenting with yet another group formerly excluded from even these slow-learning classes, namely, the trainable.

In addition to the full range, or nearly the full range of mental ability, the school age population presents a full range in interests, in aspirations, and in cultural differences. These distinctions are no less significant than distinctions of ability. These, too, must shape the school if it is to develop potential because it has among its constituents not only those with keen academic interests but also all of those with little academic interest and many with no academic interest. We do not know enough about the aptitudes and interests of children and young people with little academic persuasion. It is entirely possible to be both able and educated today without a knowledge of Latin and Greek. We sometimes regard those uninterested in depth of study in the academic areas we revere as strangers in the midst. Compared to the insights which we will surely have some day regarding the complexity and variety of human characteristics and ways to bring them to full power, we are today only groping in a half light.

There is in addition to the individual's needs for intellectual, economic, and spiritual development his need for competence to handle the social conditions confronting him, particularly tension - which is another characteristic of social change accompanying mobility, urbanization, and technology. The strains under which adults live and work, the national and international controversies in which we engage, and the ominous prophecies we make of inevitable nuclear war exert pressures upon our children influencing their emotional control and their sense of adequacy. One of our great myths is that childhood is a blissful period. Childhood is usually as contented and exciting and hopeful as the world appears to be to the adults.

Yet another current social condition affecting the outlook of youth is to be found in the increasing dominance of science in our every day lives. Scientific literacy is now mandatory; but scientific specialization will remain selective. Recent emphasis upon teaching of science in our schools has been effective in strengthening the scientific program. Our purpose, however, must remain a purpose useful to the broadest group of young people. This is to say that scientific sophistication adequate for life in an increasingly scientifically predicated civilization must be developed as broadly as possible. It also means that we are not trying to make a Newton or Einstein out of every child. By extension it also means that the Newton and the Einstein will be identified and inspired and developed.

The American social scene has been one of abundance and plenty. With lavish natural resources, extraordinary political freedom, and absence of international pressures, our development has been that of a people with expendable resources. We can no longer afford wastefulness, if indeed truly we ever could, either in coal or in human resources; as a result in our great cities today we have a new and unprecedented social problem which stems jointly from our sectional educational inequities and from our economic wastefulness. I speak of the concentrations of young people in our cities who are over age for grade, under achieving, or out-of-school and out-of-work. We have an obligation to rectify their situation to the best of our ability. We have to find the ways to prevent their younger brothers and sisters from following them into aimlessness.

The dropout, actual or potential, is receiving extraordinary attention today and one can only hope that action will follow upon attention in sufficient degree to be effective. Prevention rather than remediation is, however, a larger challenge to us. We cannot meet this challenge by rigid regulations or standard examinations or one curriculum for all. If the dropout is to teach us any abiding lesson, it is the lesson of individual differences and infinite variation and the impossibility of expecting this variety to conform to a single standard or to perform with equal acceptability according to an externally imposed criterion.

The Road Ahead

Such are the perspectives on vocational education. Indeed they are perspectives on the full-range of education. They suggest the scope of the requirements for the educational road ahead.

First, it is obvious that all individuals must have a common core of information, insight, and understanding. At the base of this common core lie capabilities in communication. Once upon a time communication skills were exhausted in the three R's - reading, writing, and arithmetic. Today, the radio has made listening a major means of communication pervading our way of life. Television has added to listening, the communication art of viewing. The ability to evaluate what one hears and sees and reads is a further refinement of communication. In

order to assume his full rights and privileges through powers of citizenship, each individual requires a knowledge of history and a comprehension of current civic affairs. Next, every individual today must have comprehension of certain basic scientific and mechanical principles. Art, music, literature - all means of communication and ways of self expression - provide still other dimensions to the provisions we must make.

Some experience in and comprehension of every one of these areas represents the foundation of education needed by the public in general, but this is not to say that all individuals in the public will have the same experience or equal comprehension of every area.

In addition to this general education as exemplified by the common core, each individual requires education in greater depth or specialization in keeping with his individual interests and capabilities. The second requirement, for education for tomorrow therefore, is to provide for a variety of special interests. Our high schools have always identified and served the special interests of those individuals preparing for college or the university. Those fields known as industrial education or vocational education or technical education - and I do not mean that these terms are necessarily synonymous - provide for special interests of a different type for a group nearly twice the size of the college-bound group. Provision for the special interests of the graduates going immediately to work is neither sufficient nor realistic. Moreover the ranges within this group of special interests have never been adequately identified, nor for that matter have those of the group possessing college interests. Certainly we have obscured the extent to which college and vocational interests overlap. By dividing high school students in our thinking and in our educational planning into the college-bound and non-college bound, we have obscured the fact that at some point all students emerge as workers in our economic life.

A third requirement on the road ahead is that of providing for adult education to meet the continuing need in adult life for structured educational programs to supplement the independent study which we like to think each individual pursues. It is well advertised that the changes of automation are causing shifts in the labor force and requiring retraining to make these shifts possible. We can look forward to this cycle not only for society in general, but for many, if not most, individuals throughout their lives. In addition, human creativity will continue as long as humanity continues, with knowledge outdistancing the ability of any one individual to comprehend. If all knowledge and experimentation and invention and composition were to cease tomorrow, no one life time could catch up with all of there is to be known. It is therefore unthinkable for us to conclude that twelve or even sixteen years of formal education will suffice for the future.

Thus we must not only broaden our educational spectrum and expand it, but also build more flexibility into it and make our judgments of its effectiveness more individualized and varied. Broad principles must form the foundation for any educational program. It is futile to prepare individuals for specific kinds of work which may or may not exist tomorrow without providing them with the general skills that will permit them to modify specific capabilities as the need arises.

Finally in this regard there is the mandate to pursue excellence. Excellence is in itself a variable. It is as much the pursuit as the attainment upon which we must concentrate, for pursuit of excellence like knowledge, recedes before us as we move.

Long ago we recognized that equal opportunity and identical opportunity - whether in marathons or mathematics - are mutually exclusive. I hope that our society may grow in insight about excellence, about equality of opportunity, and about the equal dignity of the variety of necessary programs within the spectrum of education. I wish that we could use such terms as industrial education or vocational education or technical education or general education or college preparatory or non-college preparatory education merely as symbols or shorthand and not as judgmental terms obscuring equality of educational opportunity.

Conclusion

The challenge today is not a challenge of one program as against another; it is the challenge of the total magnitude of our educational needs. The educational challenge is a total challenge to our way of life. On the surface it may appear to be a cultural or an economic challenge; actually it is a moral issue challenging our basic beliefs.

The great truth is that the broader the base of education the more education all will have. The broader the base of wealth the more wealth there is for all. The truth is, the greater the opportunity for each, the more achievement is possible for all. To infringe the right of any one person is to compromise the rights of all. It is America's spirit that is challenged and America's spirit that is the issue.

America's spirit stands poised on the launching pad of Cape Canaveral, straining to thrust itself into outer space. It rides the jet stream around the world and cruises under the ice cap above the Bering Sea.

America's spirit lies in the holds of its Merchant Marines carrying a gift of wheat or commercial goods to distant ports. It travels over the air waves when a Bernstein lifts his baton. It resides between the covers of more than ten thousand new books annually.

America's spirit also stands on the street corners with nothing to do.

America's spirit waits in the classrooms of this country, among the children who are young and eager and full of wonder. Their names are Solonowitz and Sherwood; Cohen and Campbell; Olevetti and Olson; McNamara and Ming.

These children come from every kind of home: from farms, from high rise apartments complete with canopy and doorman, from basement flats and bungalows, from suburban ranch homes, from cold water tenements, and from public housing. They travel to school on foot, in buses, in private cars, and on bicycles. Their interests range from astronomy to social service including every possibility in between. Their goals are equally varied and their abilities also. They are persons - individuals. They feel as well as think; they doubt as well as believe; they wonder as well as hope. No perspective on education can be complete until we look at their faces, hear their voices, and watch them develop.

When one of them moves on, another takes his place in an endless procession. To paraphrase George Bernard Shaw, the children of the school never grow up as the children of parents do.

They are today's great challenge. They represent the dignity, rights, and worth of individuals. Their tomorrow is our transcending moral choice today. Their tomorrow lies in the educational choices we make for them today.

Will we meet this challenge? Will we? We had better, or there will be no future for anyone - not for anyone at all.

THE TEAM APPROACH IN VOCATIONAL EDUCATION

by
Walter M. Arnold
U. S. Assistant Commissioner of Education
for Vocational and Technical Education

It was Dr. Taylor, the Director of this National Center, who suggested that my presentation today should focus on the team approach in vocational education. There is probably no concept more important to consider when we examine vocational education in the light of changing times. Therefore, I am pleased to have this influential audience to hear my views. I shall keep my remarks fairly brief in order to allow time for discussion.

The team approach reflects a need throughout this country for coordinated action to develop vocational and technical programs on a scale broad enough to help us cope with some of the new socio-economic problems that derive from technological change. In its broadest sense, the team approach should draw together educators; social scientists such as sociologists, economists, and specialists in major occupational areas, including representatives of labor and management, in search of answers to problems that puzzle all. It should fuse the separate energies of the 50 states and myriad communities by creating keen awareness of the growing interrelationships and interdependency of the one upon the other.

Starting with such a broad concept of the team approach, we can move more meaningfully into the team approach as applied specifically to the various fields of vocational education.

The team idea didn't just spring up overnight. It is the natural and evolutionary outgrowth of much thinking and soul-searching on the part of many different groups in this country, all of whom have arrived, from differing directions, at this conclusion:

Vocational education should be a central feature of educational planning, and of economic development.

There is little room today for the uneducated and untrained to move ahead in any enterprise. Indeed, even their barest survival is threatened. Our society of 180 million people is premised on the doctrine that each has the right to shape his own destiny. But in this new age -- when men's knowledge is doubling every decade -- only those who possess marketable skills and knowledge are in control of their own lives. Pockets of chronic unemployment and groups of unemployables are more than local problems. Because of the radical changes in job skills and requirements, the mobility of people today, and the swift changes taking place in business and industry, the vocational training opportunities or lack of them in any one place become matters of concern to all of us.

At the moment, much attention is focused on the 5 million unemployed; and on the 2.6 million young people who are entering the job market each year; and on the countless numbers of unskilled and semiskilled workers who will soon find themselves the victims of technological obsolescence.

The Manpower Development and Training Act was passed last year -- by a strong bipartisan Congressional vote -- as a stop-gap measure to relieve unemployment due to technological change and to develop more skilled manpower through special training programs. But this kind of legislation is no panacea: It is not a defense against future generations of unemployables. It is a first major step in the form of Federal legislation to remove the limitations of occupational categories and, in turn, bring about a different approach to training for available job opportunities.

A concern about what is happening to your young people -- today's school children -- has led the present Administration to take some dramatic steps directed toward vocational education and also toward the 80 percent of our children who do not graduate from college.

About a year and a half ago the President appointed a Panel of Consultants to examine existing Federal legislation with a view to modernization and expansion of provisions for Federal aid for vocational education. The Panel's recommendations, reported last December, have generated new thought and action.

The Panel's recommendations called for vastly increased appropriations and for drastic re-emphasis of vocational education goals. The intent was to eliminate the inhibiting effects of Federal aid designated for limited specific categories of training, and to focus attention on the kinds of people and the areas of the economy that need to be served. Plainly, the Panel was saying that we have been putting the cart before the horse when we

have designed programs prior to analyzing human needs in the light of realistic appraisal of the present and future economy of the nation.

The Panel took the position that the people who should be served by vocational education are most of the people: Youth in school; youth and adults out of school who are in need of special skill training; and youth with socio-economic or academic handicaps. Thus, we are faced with the challenge of devising vocational education for people with a range of ability levels from very low to very high; and a range of ages from very young to very senior; and a range of family backgrounds as varied as our population. And all of this is to be considered in the light of the total labor market needs and demands.

Reflecting the recommendations of the Panel of Consultants are the legislative proposals now before Congress.

Early this year, within the framework of the comprehensive National Education Improvement Act, the President proposed increased Federal aid for vocational education; more leeway to the states in determining occupations for which Federal training funds may be used; and availability of funds for area vocational school construction and for special projects in big cities where youth unemployment is most serious.

Adapting the Administration's proposals, Congressman Carl Perkins of Kentucky introduced a subsequent bill -- H.R. 4955 -- which called for substantially greater Federal outlays. This measure, providing $45 million additional funds -- has already been approved by and voted out of the House Committee on Education and Labor.

Most recently -- on June 19 -- the President delivered a special message to Congress dealing with civil rights and equality of employment opportunities. Contained in this message were several recommendations to endorse the Perkins Bill and to supplement earlier Administration proposals concerning Federal aid for vocational education.

The new Presidential proposals would authorize $108 million ($85 million more than the original recommendation of $23 million) in grants to the states, with the amount to increase to a high of $243 million in 1967. Called for, also, is a 5-year program -- aimed at the large urban areas where school dropouts and unemployed youth are excessively high -- to demonstrate the "feasibility and desirability" of residential vocational education schools for high school age youth. Still further, the Administration requested a 5-year work-study program -- of $50 million annually -- to assist in providing part-time employment for needy students to continue their vocational schooling.

The push is a great one for vocational education -- a push so strong that it can knock the wind out of us if we are not braced in advance for the challenge.

Even if none of the legislative proposals bears fruit in the form of Federal funds this year, they have already caused a sprouting of new plans in many states, new policy decisions in the Office of Education, and new interest on the part of the general public.

Of the growing public interest, I am sure you are all aware. Hardly a day goes by when newspapers and magazines fail to carry a story about vocational education in one form or another.

In several states and communities, various aspects of a team approach are already being tried. At the last meeting of the State Directors of Vocational Education in Washington -- last May -- several of the states reported progress in developing new programs which cut across our traditional occupational categories.

Very briefly, there are various team activities dealing with agri-business education, mechanical service and sales, electro-mechanical technology, home and community service occupations involving homemaking and health occupational skills and knowledge, electrical appliance service and sales training, and an increasing cross-fertilization of specialty skills in the newer and rapidly expanding field of electronic data processing.

The best example of our Division's activity in the team approach occurred last April, when 10 of our staff visited the State Department of Vocational Education in South Carolina for three days to assist in implementing the recommendations of a survey of vocational education that had been conducted in that state during the preceding year.

Within the Division of Vocational and Technical Education, the team approach has been developing slowly for several years; first in the technical education programs under Title

VIII of the National Defense Education Act of 1958, and now more recently in connection with the development of training programs under the Manpower Development and Training Act. Funds available through this Act have contributed to the shaping of curriculum guides which have been prepared under direction of teams from the various branches -- Distributive Education, Agricultural Education, Trade and Industrial Education, Home Economics Education, and Technical Education. The specialists in these various fields have helped to develop training programs in new and emerging occupational fields, without regard to a particular occupational category. Moreover, we are presently working on a plan to bring to our present staff a team of social science specialists -- in sociology, economics, and psychology -- to help relate vocational education goals to the broader community goals of social stabilization and economic development.

The general policy of our Division of Vocational and Technical Education is to make certain that people's training needs are met in the light of present and future job requirements and in so doing, avoid the risk that needs might not be met because specialists in vocational education are arguing about who shall do it. In the context of this policy, we should seek and use the greatest possible flexibility of working relationships between our various specialists and specialty services.

These are steps that can be taken now, without having to rely upon new increases in appropriations for their implementation. They are not unlike steps that have already been taken in some of the states. They are indications of the forward look and their implementation will help to rectify some of the inadequacies in our traditional structure that have brought down some broadside criticisms of vocational education in recent times.

I heard Education Commissioner Keppel remark once that what is happening to vocational education now is what happened to elementary and secondary schools generally right after World War II, and what will very likely happen to higher education before long: An attack on weaknesses; a vast effort to strengthen programs; and the emergence of new concepts and approaches that make for excellence.

The beginning point, for vocational education, lies in the team approach. I do not mean to imply that we should abandon our "specialist" skills and administrative structure -- the specialists are the bedrock. But, we do need to stretch our vision and employ every resource and skill we have in vocational education -- and we have many.

What I am saying is that vocational education must face the economic and social realities of the times, and provide programs that will help people adjust to their new stresses. The very nature of work is changing, and we cannot close our eyes to the fact. Occupations which were once well defined are now blurred into functions that combine a cluster of skills. Within each and every one of the categories of vocational education as we define them today there is a wealth of opportunity to blend the specialized knowledges of teachers and administrators for the purpose of creating new categories and defining new occupational fields in which there is demand for manpower.

Let me illustrate: In home economics, a tremendous breakthrough is occurring, and it is directly attributable to new occupational opportunities that have come to light as a result of manpower training for the unemployed. With the aid of specialists throughout the country, we are at present drawing up a series of curriculum guides in such home-related occupations as homemaking aide for public housing; aide for child day care centers; aide in food service for school cafeterias; and aide in care of the aged. To develop such curriculum guides requires teamwork, not only across some vocational education lines -- practical nursing and distribution, for example -- but also with public welfare authorities and with labor economists.

In your own field of vocational agriculture, the possibilities for the team approach are self-evident. Even though the number of persons engaged in farming per se is declining, the food output is increasing, the food-consuming population is increasing, and the demand for specialists in processing and distribution is growing. As science and technology reduce the physical labor of farming, there is created a need for personnel who are specialists in such technical aspects of farming as pest control, irrigation, machinery repair, and business management. Contracting for these services is a business in itself.

Shifting technology in agriculture is creating new job opportunities and new job titles that are no longer clearly and rigidly associated with traditional categories. Let me illustrate in terms of the three main segments of agricultural occupations -- namely, input, production, and output. (This illustration comes from a study by the California State Department of Education, entitled "Technicians in Agriculture.")

- About 40% of the total work force is engaged in farming or farm-related or farm-influenced activities.

- Only 8% of the labor force is in actual production work in farming or ranching, including truck farming and raising of forestry products.

- The balance are engaged in input or output occupations -- for example, feeds, seeds, fertilizers, insecticides, consultative services, artificial insemination, communications, etc. on the input side; and processing, transportation, marketing, selling, advertising, etc. on the output side. Moreover, about 15% of the input and output people never have face to face contact with farmers or farming. Nevertheless, all of the input and output workers should possess some knowledge of agriculture; and such training logically falls within the purview of vocational agriculture -- in courses inserted into primary fields of technology or distribution.

In these brief illustrations, I am only touching the perimeter of possibilities for developing a whole new vista of vocational programs through the team approach. The more "cross breeding" of services we do, the more numerous and effective will be the programs that develop. There is no good reason why we should not include in a distributive education program a course or two of instruction by a vocational agriculture specialist; there is no good reason why we cannot mingle a mechanics course with instruction in selling or in the technical aspects of transportation. What has inhibited this kind of teamwork in the past has been a reluctance upon the part of each of our specialized services to surrender its traditional notions of what "agricultural education" is, or what "distributive education" is, or what must be included in or excluded from trade or technical education.

This is probably one reason why vocational education has not become a major part of most school systems. We have been in the minor leagues, so to speak. But there seems to be little doubt that now we are moving into the majors where skillful teamwork is the formula for survival and progress.

Teamwork in vocational education must involve such considerations as these:

1. Full orientation as to the existing and potential opportunities in the labor market. There is no use trying to devise programs to serve vast numbers of people if the programs are not geared to the economics of the community and the region.

2. A new attention to and emphasis upon teacher education -- the education of different kinds of teachers for different kinds of occupational training programs. A vocational education program can never be any better than the teacher or the methods of teaching that are employed.

3. Along with attention to teacher education, we must pay closer attention to the development of new teaching aids and teaching materials -- development of skill in appraisal and use of new techniques, including programmed instruction and teaching devices.

4. Research. Perhaps this National Study Center for Agricultural Research might become the nucleus of a national center -- or centers -- for vocational education research. As a first assignment, there should be conducted a series of coordinated state studies similar to those currently under way in the field of vocational agriculture. As you know, these studies represent a coordinated effort -- teamwork -- among more than 20 states. Their purpose is to determine the number and kinds of agricultural employment opportunities in occupations other than farming and ranching; and to determine the competencies needed for such occupations. Data from four or five states are expected to be forthcoming within a few months; and another 18 or 20 states will complete their studies next year. A major end product should be the encouragement of policies and plans with regional and national implications.

5. Evaluation. Continual, objective, almost ruthless self-appraisal will be necessary to insure that we do not slip back into familiar patterns just because it is easier to do so, even when the old patterns may be inadequate as retaining walls against the shifting trends of our modern-day society and economy.

6. One of the surest safeguards against inadequacy turns upon the extent to which we involve other groups in vocational education planning; other public school educators and administrators; business and industry in the area; representatives of labor and agriculture; and civic groups that speak for the general public. Such groups lend new perspective; we find this to be true in developing manpower training programs. They also lend support by virtue of their involvement.

I have purposely kept most of my remarks somewhat broad and general, in the hope that they might generate some specific questions. There are no pat answers to the whole concept of the team approach. Each state has its own situations which must be handled in the most appropriate ways for that particular state. But on the basis of some experience in the Office of Education itself, I hope that I have been able to throw some light on the way certain specific aspects of the team approach can be treated.

Of one thing we can be certain -- too much time has already gone past to permit further dalliance. If we don't act now -- with imagination, with courage, and with both eyes on the future -- there is real danger that there will be no future for this nation. A government structured on the premise of equality of rights for all has the obligation to aim for opportunity for all to develop their abilities, earn a living with their skills, and thereby to add to the stockpile of our basic resources -- the human potential.

CHALLENGES TO STATE LEADERSHIP

by
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It is a privilege to participate in this workshop sponsored by the National Center for Advanced Study and Research in Agricultural Education. I am pleased to compliment Dr. Robert E. Taylor and others who are providing leadership in these worthwhile activities.

These are challenging, changing days. The Report of the Panel of Consultants on Vocational Education, national legislation proposals, state legislative action, as well as the workshops in agricultural education, such as in farm management, studies in agricultural education, and international activities have had tremendous influence on the responsibilities of supervisors and teacher educators.

The Current Situation

The Panel of Consultants has submitted a significant Report, with many implications for agricultural education. Recommendations have been made that the instructional program in agricultural education be broadened with more emphasis on the teaching of management and finance, forestry, conservation, horticulture, farm mechanics, and recreation. It is believed advisable for teachers of vocational agriculture to provide instruction that can assist farm families in the utilization of part of their farms for recreational activities that may bring in additional income. These may appropriately include the establishment of ponds for fishing and swimming, the production of game birds and animals for hunting, horseback riding, camping, and providing lodging for families who wish to vacation in the country. These challenges should stimulate sound planning and the development of additional instructional programs in agriculture.

Agricultural Occupations

The Panel of Consultants also recommended that the program of instruction in agriculture be broadened to include off-farm agricultural occupations. The Perkins Bill in Congress provides for the amending of the George-Barden Act to make it possible for agricultural education programs to be offered for other agricultural occupations.

Implications for the Federal Office

There are many implications of responsibility and for leadership by the federal office. These include providing assistance in the development of federal policies that can help safeguard the development of sound programs of education for agricultural occupations. It will be necessary for adequate staff to be provided on the federal level to provide the assistance that may be needed by the states to develop these new programs. It is recognized that much team work will be needed with supervisors and teacher educators as we undertake the challenging tasks that lie ahead.

Implications for Supervision

There are, likewise, many implications for the field of supervision. One of the first major problems to be faced will be that of the adjustment of state staffs to assure adequate leadership on the state level to a broadened program. In the beginning it will doubtless be necessary for many additional responsibilities to be accepted by the current staffs. It may be necessary to postpone temporarily some of the current activities in order to activate the enlarged program. It is very important, however, to maintain the farmer training program. We must not permit the development of new instructional programs in agriculture to lessen the effectiveness of farmer training. The passage of proposed legislation would require revisions to be made in state plans. Appropriate outlines will need to be developed and distributed to the states.

It is my hope that the new educational programs in agriculture may be administered in a manner that will promote the closest type of cooperation with existing educational programs in agriculture.

It will be necessary for states to plan for facilities which will be needed for the new programs. Since it is anticipated that boys and girls and men and women from the cities as well as the farms may enroll for instruction in agriculture to prepare for agricultural occupations or to prepare for advancement within these occupations, additional facilities will doubtless be required. These may include school farms, land laboratories, school forests, well equipped laboratories, greenhouses, nurseries, and other such facilities.

It is going to be a challenging assignment to develop an adequate blueprint for instruction in agriculture in the years ahead.

Implications for Teacher Education

Teacher educators will play a major role in the launching of new programs of instruction in agriculture. Their activities will be varied and numerous. It will be necessary to assist in the recruitment of teachers. Some new teachers will doubtless possess only limited skill and knowledge for a particular occupation and will need much help in the giving of instruction. Courses will need to be offered to prepare a new type of instructor in agriculture for these new occupations. The problems of enlistment of new enrollees for teacher training in agricultural education, placement, and followup are important.

Teacher educators are expected to share in conducting the research that is necessary in determining the agricultural occupations, in the planning of instructional programs, and in the evaluation of these programs.

Many new teaching aids and subject matter materials will be needed. This will be a new challenge for teacher educators.

The problem of upgrading instructors so they may serve more effectively in these new fields can be a most significant one. This upgrading will have implications for teachers of vocational agriculture. I anticipate that it may be possible for many instructors to take additional training and prepare for instructional programs on the post high school level that may offer excellent opportunities for advancement.

Problems We Face

As we move forward aggressively to broaden our current instructional program and to launch new programs of instruction in agriculture, many challenging problems must be faced. One is that of public understanding. It is imperative that the public be kept informed of these new training programs and the effort being made to meet the new and emerging needs for education in agriculture.

Facts concerning the need for education in agriculture must be interpreted to the public. These should include facts related to farming as well as the other agricultural occupations. We are pleased that some twenty-five states are launching statewide studies to determine the various agricultural occupations and the opportunities for placement in these occupations. I hope that all other states will launch such a program soon. We must obtain the necessary facts concerning need, for these facts will serve as a foundation for the planning of instructional programs in agriculture.

Additional funds will be needed to provide the programs of education envisioned by the proposed legislation. The proposed legislation would make funds available to provide vocational instruction for any occupation below the degree level. The completion of studies of agricultural occupations will make it possible for states to determine accurately the share of these funds that should be used for instruction in agriculture.

Supervisors and teacher educators have done excellent work in the field of evaluation through the years. It is time now to take another very critical look at local departments of vocational agriculture to determine their effectiveness. After the facts are obtained concerning need for instruction in agriculture, the current program should be evaluated, broadened, and extended as needed to meet current and emerging needs for instruction.

At the local, state, and national levels there will be the serious problem of obtaining adequate staff to develop the programs of education in agriculture that are necessary. Training programs must be developed that will produce instructors, supervisors, and teacher educators who can share in the further development of the programs.

We face a tremendous challenge in developing sound plans and procedures that may be followed throughout the nation in the launching of new programs in agricultural education. Experimental and pilot programs are encouraged. It will be advisable, however, to develop as soon as we can sound blueprints that may insure the development of the soundest type of education in agriculture throughout the nation.

Where to offer the new programs of instruction in agriculture is another problem. I anticipate that in the years ahead the instructional programs in many of the agricultural occupations will be offered on the post high school basis in area vocational and technical schools, community colleges or junior colleges.

Many questions are being raised concerning when should these courses be offered. It is the feeling of many that instruction in agriculture may start in the 9th grade in high school with one or two years of a foundation course. This course would acquaint students with the broad field of agriculture, and provide instruction in plant and animal growth and other basic agricultural areas. Students would be launched into participating activities in agriculture and would have the opportunity to start leadership development in a revised FFA. At the end of two years it is believed it will be possible for students to decide their areas of interest. Those who wish to farm will continue to prepare for farmer training. Those who wish to go to the college of agriculture may likewise continue in the farmer training program. Students who desire to prepare for other agricultural occupations may enroll in special courses designed to prepare them for these fields.

It is expected that there will be much cooperation between the various fields of vocational education to meet the needs of students who are preparing for occupations which require instruction in more than one field of vocational education.

It is important for us to start working soon on the preparation and selection of appropriate teaching aids and in the development of adequate course outlines for these new occupations.

There are many significant challenges today as we attempt to broaden programs of education in agriculture and develop new instructional programs for the varied agricultural occupations. I look to the future with confidence for I know that there is competent leadership in the fields of supervision and teacher education throughout the nation. Let us move forward aggressively and work together as a team to broaden current programs and to develop new programs of education in agriculture that can meet the existing and emerging needs. There are many challenges for us in 1963 and in the years ahead. We accept these challenges. This workshop will play an important part as we move forward to provide sound leadership in agricultural education.

A VOCATIONAL AGRICULTURE TEACHER LOOKS AT THE PANEL REPORT

by
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In his first message to Congress on American Education, February 20, 1961, President Kennedy proposed that an advisory body study the Federal Vocational Education Acts. "The basic purpose of our vocational education effort is sound and sufficiently broad to provide a basis for meeting future needs," he said. "However, the technological changes which have occurred in all occupations call for a review and reevaluation of these acts with a view toward their modernization."

On October 6, 1961, the Secretary of Health, Education, and Welfare appointed the Panel of Consultants on Vocational Education, twenty-five men and women representing agriculture, education, government, management, labor, the teaching profession, and the public. The Panel held many meetings, commissioned numerous studies, and convened several specialized conferences to carry out the charge of the President to review and evaluate the Federal Vocational Education Acts. The Panel studied the impact on vocational education of automation, technical advance, population mobility, various discriminations, urbanization, and the relationships between local, state, and federal programs. The Panel concluded its work last November with the completion of its Report, "Education for a Changing World of Work."

Panel Report for All Phases of Vocational Education:

The Panel recommended that new Federal legislation for vocational education substantially increase the Federal contribution of funds to assist states in supporting their vocational education programs. A total Federal appropriation of $400 million was recommended for the 1963-64 school year. In addition, the Panel recommended that these funds be allotted among the states on the basis of the groups of people to be served rather than the traditional subject-matter categories of agriculture, home economics, trades and industries, etc. These categories would continue to be the subject-matter of vocational education, of course, along with office occupations which should be, for the first time, made eligible for Federal funds.

As our employment structure continues to change, and as knowledge and skills become more complex, this proposed new type of administrative structure should permit the flexibility necessary to meet the demands of technological change. Under this proposed new arrangement, it should be more nearly possible to meet the needs of these groups of people who will need or want training in vocational education - high school youth, youth with special needs, post-high school youth, and working youth and adults.

Brief Recommendations for Groups

1. For High School Youth:

For young people in high school who are preparing to enter the labor market, become homemakers, or to become farmers, the Panel recommended that present vocational education programs be expanded. Training for office occupations should be included among the federally reimbursed vocational education programs. Pre-employment training for the distributive occupations should be eligible for Federal support in addition to the present cooperative (work-school) programs. The vocational agriculture program, under Federal reimbursement, should permit instruction for occupations related to agriculture as well as for actual farming. The home economics program should include training for occupational skills related to homemaking or for employment.

2. For Youth with Special Needs:

For high school age youth with academic, socio-economic, or other handicaps that prevent them from succeeding in the usual high school vocational education program, the Panel recommended that instruction be highly individualized. Diversity and flexibility must characterize these programs. The Panel recommended that experimental or pilot projects to develop more effective instruction for youth with special needs should be fully supported by Federal funds.

3. For Post-High School Youth:

For youth and adults who have completed or left high school and are full-time students, preparing to enter the labor market, the Panel recommended that the Federal Government increase its support of full-time, post-high-school vocational and technical training. An advancing technology constantly demands more skilled craftsmen and highly skilled technicians in occupations requiring scientific knowledge. Vocational and technical education must prepare many more technicians and skilled craftsmen for employment in industry, business, agriculture, and the health fields. Many more area and specialized vocational schools are needed to meet this national need of urgent importance.

4. For Working Youth and Adults:

For youth and adults unemployed or at work who need training or retraining to achieve employment stability, the Panel recommended that part-time, short-term training courses be expanded. Millions of workers require updating and upgrading - lifelong learning - in an era of changing materials, processes, tools, and techniques. Courses in many fields, including the office and service occupations, should be made available to both groups.

The Panel proposed a fifth administrative category for vocational education. The Panel recommended that funds be allotted for services and facilities required to assure quality programs of vocational education to the proposed groups to be served. If accepted, this recommendation would lead to Federal support of research in vocational education, instructional materials laboratories specifically for vocational education, and expanded programs of teacher training and guidance and counseling.

In reviewing the Federal Vocational Education Acts, the Panel devoted much time trying to assess the limitations as well as the achievements of vocational education. The Panel considered the primary shortcomings of vocational education to be those resulting from lack of funds, outmoded administrative patterns, certain specific legislative limitations which have made it difficult to revise the program to meet the needs of a changing economy, and a lack of knowledge, understanding, and full appreciation for vocational education on the part of many important leaders in the field of education.

The Panel was convinced that vocational and technical education are sound investments in people. Data indicated that graduates of high school vocational education programs are less likely to be unemployed than other high school graduates, that vocational education graduates do in fact work in the occupations for which they prepare, and that vocational education increases their subsequent earnings.

The Panel found that vocational education is not available in enough high schools. In a special study made by the Panel of 3,733 public high schools in six representative states, only 5 percent offered distributive education courses, only 9 percent offered trade and industrial courses, and less than half offered courses in homemaking or vocational agriculture. Even in the largest cities, less than one-fifth of the high school students are enrolled in vocational education programs, although two-thirds of those completing the high school curriculum will not complete four years of college education.

The Panel also found that vocational education programs are not preparing people for enough kinds of jobs. One study which compared vocational education enrollments with subsequent occupational employment found that only ten boys studied vocational agriculture for every 100 males employed in that field. The ratios were even less satisfactory in wholesale and retail trade (1:200) and manufacturing and construction (2:444).

The Panel further found that post-high-school technical training is an especially critical need in our nation. This program must be expanded. Estimates of the number of new technicians needed in every year of the present decade range from 67,800 to 200,000.

The Panel's general recommendations were that, in a changing world of work, vocational education must --

. . . Offer training opportunities to the 21 million non-college graduates who will enter the labor market in the 1960's.

. . . Provide training or retraining for the millions of workers whose skills and technical knowledge must be updated, as well as those whose jobs will disappear due to automation or economic changes.

. . . Meet the critical need for highly skilled craftsmen and technicians through education and training beyond the high school.

. . . Expand vocational and technical training programs consistent with employment possibilities and the national economic needs.

. . . Make education and training opportunities equally available to all, regardless of race, sex, or place of residence.

The Panel commended vocational education for the many desirable contributions it has made to the educational and economic development of our nation. In order for vocational education to serve adequately the people of our country in the years ahead, the Panel strongly believed the following conditions must be met --

. . . School administrators and officials must recognize the need for vocational education training.

. . . Vocational training should be provided in more schools, for more occupations, and extended into post-high-school programs.

. . . Under proposed new legislation, the traditional occupational categories should be replaced by broader areas of service to the groups of people to be served.

. . . The Federal Government will need to assume a larger responsibility in financing vocational education.

Implications of Panel Report for Agriculture:

In reviewing the Federal Vocational Education Acts, the Panel of Consultants devoted much time to vocational agriculture, trying to assess its limitations as well as its achievements. The Panel commended the instruction in vocational agriculture through the years. The Panel recognized that vocational agriculture has made a great contribution toward America's status as the world leader in agricultural production. At the same time, through vocational agriculture, the needs of individuals in our democratic society have been met to a high degree as students have been encouraged to develop character, thrift, scholarship, cooperation, good citizenship, and patriotism. The shortcomings of vocational agriculture were considered to be the same as those previously mentioned for all fields of vocational education.

Thinking in terms of the groups of people to be served in agriculture under the proposed new legislation, they could be stated as follows:

1. High school youth who are preparing to become farmers or to enter the labor market in occupations related to agriculture.

2. High school youth who have special needs and require special programs to attain occupational competency or to become farmers.

3. Youth who have left high school and who are enrolled, full-time, in courses which prepare them for farming or farm-related employment, or for entrance into the general labor market.

4. Youth and adults who are already engaged in farming or other related employment.

Of course, the Panel proposed the fifth administrative category for agriculture to assure quality programs for all four groups of people to be served.

You will observe that the Panel of Consultants recommended that the curriculum be expanded to include training in agricultural-related occupations other than for farming.

Even though the manpower requirements in farming are decreasing, a special study made for the Panel "Manpower in Farming and Related Occupations" states:

> It is clear that the nation will need more, not fewer, highly trained efficient farmers in the future. The growth of efficient family farms is very pronounced. The increased complexity of farming operations

> associated with improvements in technology and the increased investment per farm accompanied by greater specialization in production can be expected to continue. These developments emphasize the premium which will be placed upon managerial ability in agriculture during the next decade. Knowledge and flexibility will become even more important than they have been in the past. Ability to adapt quickly to changes in technological and economic conditions will be the test of success in farming."[1]

The technological developments in all fields have emphasized the need for better understanding of the fundamentals of science and of the other forces that affect our economy. The farmer of the future must have knowledge of plant and animal growth; he must understand the chemistry and physics underlying the development of farm products; he must know and understand business principles and how our economic system works.

Challenges Ahead in Agriculture:

Although vocational agriculture is now taught in approximately 10,000 secondary schools in the United States, many schools do not now provide vocational agriculture programs where they are needed and wanted. In a six states study made by the Panel, only 45 percent of the secondary schools offered courses in vocational agriculture. This is a serious challenge which must be met.

Should Congress approve the proposed new legislation to expand and strengthen vocational education, vocational agriculture teachers and administrators must turn their attention to the following challenges:

. . . Vocational agriculture courses must be continually evaluated and updated in keeping with technological changes.

. . . Research in agricultural education must keep practices abreast of scientific, economic, and social changes.

. . . Teaching aids and instructional materials must be kept abreast of technical advances in agriculture.

. . . Programs of teacher training and guidance and counseling must be expanded and strengthened.

. . . All leaders in the vo-ag field must assume the responsibility to bring about desirable adjustments in the program in the years ahead rather than to wait for pressures to be applied to force changes.

. . . The primary leadership for adjustments in the vo-ag program should come from our own field.

. . . Fear of what might happen to the vo-ag program if certain changes are made must not be a dominating factor to hinder efforts to strengthen and improve the program in future years.

. . . Those in positions of leadership may in some cases need to take the initiative in closing or transferring certain vo-ag departments.

. . . Cooperative programs involving agriculture and two or more areas of vocational education must be created where these would provide effective learning experiences in preparation for employment or for farming.

. . . The advisability of more multiple-teacher departments must be given serious consideration.

. . . Adjustments pertaining to requirements which should be met by students who desire to enroll for vo-ag must be given careful attention.

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[1] "Manpower in Farming and Related Occupations," a Study prepared for the Panel of Consultants on Vocational Education, July, 1962, by C. E. Bishop and G. S. Tolley, Professors, Department of Agricultural Economics, North Carolina State College, Raleigh, N. C.

. . . Certain adjustments pertaining to the supervised practice phase of the vo-ag training program must be considered.

. . . Certain adjustments may need to be made in the Future Farmers of America organization.

. . . Pilot programs in vo-ag of an exploratory, orientation, and guidance nature should be developed.

. . . Farm science and management will require greater emphasis in vo-ag programs in the years ahead.

. . . The future use of agricultural lands for conservation and recreational purposes requires occupational training in occupations not fully developed or even foreseen at the present time.

. . . High school and adult programs must serve a larger clientele. In addition to providing basic training for the occupation of farming, the curriculum must be diversified to prepare youth and adults for non-farm occupations which require knowledge of agriculture.

. . . Technical training must be developed to prepare high school graduates to prepare for employment in agricultural service occupations and businesses. These programs should be provided in secondary schools, community colleges, and/or area schools.

. . . Programs must be strengthened for young farmers who are striving to become established and for adult farmers who must continue to increase their proficiency.

. . . All workers in vocational education in agriculture must join hands to help improve the image of our great program.

. . . The high standards developed for vocational education in agriculture through the years must be maintained.

. . . All workers in vocational education in agriculture must accept the challenging opportunities the Panel report has provided to strengthen and improve the program.

. . . All workers in vocational education in agriculture must join hands with AVA, NVATA, their state vocational associations and others in doing everything within their power to help implement the recommendations of the Panel report.

. . . And finally, but not last or least, as teachers of agriculture we are educators. We must accept the fact that we occupy a peculiar place in society and if more is expected of us than is expected of other citizens it is because we fill a greater need and belong to a calling which requires extraordinary dedication. We must realize the full meaning of Henry Brooks Adams' words when he said, "A teacher affects eternity; he can never tell where his influence stops."

The Panel report included recommendations that will make it possible to train people in vocational education in agriculture who have the need, the desire, and the ability to benefit from such training.

Time limitations prevent giving many of the findings and implications of the Panel study. It would seem desirable for every worker in Vocational Education to become thoroughly familiar with this important study. A first step would seem to be to study the "Summary Report" published in the December, 1962, issue of The American Vocational Journal. Many workers will, also, want to study the implications and findings reported in the complete report of the Panel which includes about three hundred pages.

No one in our field can afford to be less than completely informed as history is being made in Vocational Education in the United States.

KEEPING AGRICULTURAL EDUCATION ABREAST OF DEVELOPMENTS IN EDUCATION

by
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Oregon State Department of Education

Dr. Taylor, Dr. Arnold, seminar members, and guests -- I would first prefer to acknowledge the very great skill, industry, and leadership which has obviously gone into the planning of this very special seminar on agricultural education. This is a tribute to Dr. Taylor, Dr. Bender, Sid Sutherland, and the others whose talents have been brought to bear on this very important activity which may be said to constitute the formal launching of a National Center for Advanced Study and Research in Agricultural Education.

During the past two days I have been impressed with the sharpshooting marksmanship displayed by Mr. Sid Sutherland as he leads this group of experts. It is apparent that he has transferred some of his baseball pitching skill and finesse on the mound in Oregon a few years ago and now excells at conference leading and direction.

The activity scheduled for these two weeks, representative as it is of the National Center for Advanced Study and Research, is especially gratifying to me for two reasons. As some of you know, I had a small part in the conception of the idea which has now materialized into this National Center.

Theodore Roosevelt once said, "When someone has an original idea and tries to pass it on to others, they will first be angry with you, then they will make the idea their own and a habit, then they will go further than you ever expected or dreamed of." I am impressed and thrilled with this National Center for Advanced Study and Research in Agricultural Education. Not only with what it already is, but with that which it gives promise to be in the future. Secondly, I am pleased because Dr. Robert Taylor, whom we consider to be a product of Oregon, was chosen to be the director of the Center. And that reminds me, in talking with Bob about my assignment here, I first asked him to give me a topic about which I knew more than the audience would know. His reply was that this was hardly feasible because that would limit the size of the group too much.

Before proceeding further, let me first apologize in advance for any comments I may make which might tend to offend you. It is my nature to be irreverent and I am often guilty of disrespect to my superiors. Please do not take my insults too seriously. It seems that no matter how hard I try to be a respectable educator, some cheerfulness or humor continually creeps in.

I believe we are confronted with a serious situation in vocational education today. Improvement and breakthroughs are sorely needed, but before these may be achieved we must first recognize the status quo for what it is.

All of us are familiar with the article by Edward T. Chase which recently appeared in Harper's Magazine (April, 1963). Mr. Chase made such statements as, "...there is in the main not even a semblance of preparation for work." He also said, "For years this national scandal has been swept under the rug," and, "Across the country a third of all vocational education funds--federal, state, and local combined--are still spent on training farmers although at present only one young applicant in ten can hope to find a job on a farm when he leaves school," "...the vo-ags are the biggest single force within the American Vocational Association, a body which a prominent member of President Kennedy's Committee on Youth Employment described to me as the greatest obstacle in American education."

There are many other piercing statements made by Mr. Chase. Most important is our reaction to his statements. It is interesting to note that we, who are leaders in vocational agriculture, have gotten together, have discussed this situation, and have been able to reach agreement among ourselves to the effect that Mr. Chase and our other criticizers are out of step and misunderstand the true facts. We recognize our "poor image" but we have agreed this is not a true image.

If this National Center is to achieve some breakthroughs - we - you - must first face up to certain facts.

Thomas Jefferson said, "I know of no safe depository of the ultimate powers of society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them but to reform their discretion by education."

A few representatives of the people enact some laws, a somewhat lesser number of persons (sometimes just one individual) take the law and make many administrative rulings, some of which are more far-reaching than the original lawmakers may have envisioned. I refer to bureaucrats such as you and the speaker. Bureaucrats who, to varying degrees, are isolated from the realities of life. Bureaucrats who develop and make static a sphere of influence - influence upon others and influence upon themselves.

We have a highly defensive attitude in our reaction to criticism. Many of our defensive statements are pure hogwash. We fail to recognize that one does not need to be a fireman in order to spot a fire. We hide behind the statement, "Don't tamper with the keystones of our education system." We have our traditional methods of teacher education, including the sacred sanctity of higher education's stereotyped, monolithic, decadent professional education courses.

One of the things so sorely needed is leadership, and leadership involves change. Let us define leadership with the following statements.

1. The object of leadership is to build spirit, morale, and initiative along with loyalty and teamwork.

2. Leaders are those responsible for mutations of society and those who are initiators of change and improvement.

3. Leadership is the process of focusing attention and releasing the energies of people in a desired direction.

4. Good leadership is wise and perceiving, in that it sees the handwriting on the wall and senses trends.

5. Leadership dramatizes, appeals, persuades, and challenges.

6. Leadership should not be confused with dictatorship or commanding.

7. Leadership consists of offering people something they desire and demonstrating to them how they may achieve it.

8. Leadership galvanizes an incoherent, wandering group so that it comes into focus, achieves unity and pride, and becomes characterized by collaboration among its several components.

9. The business of leadership is hazardous; is characterized by great potential for success as well as for failure.

10. Leadership does not function through superficial and timid tinkering with the status quo. When all is orderly and peaceful, when great issues do not divide opinion, and when the calm course of events remains unruffled, there is little place of consequence for leadership. On the other hand, when hurricanes of violence sweep about or lurk on the horizon, then leadership is needed.

11. No man aspiring to leadership is wise enough to forecast with certainty the exact results which will ensue from his chosen course of action. However, he may make an honest, unbiased survey of facts; deduce practical, long-range probabilities; make some conclusions; and assume initiative and offense.

12. Leadership does not consist merely of diagnosing situations suggesting solutions. In fact, these ingredients are present in abundance on all sides. It is one thing to witness a situation; another to desire to do something about it; still another to figure out what should be done. The most essential thing is that of implementation. This latter factor -- implementation -- describes the role so urgently needed for state departments of education today. It certainly applies to the National Center for Advanced Study, and to each of you.

Leadership is characterized by change, and thus is most frequently faced with many defensive excuses and great opposition. When we have a sense of security, we do not wish to have it upset. There is a fear of change because it involves the necessity of leaving the comfortable status quo of the present and embarking upon a course which may be hazardous, which may involve decision-making and reorganization of the current patterns. It may also involve additional work, more study and learning; it may involve being nudged out of the nest of security. Even though this may ultimately result in far greater things, it may also result in falling over a precipice to death.

Let us not approach our own situation as one comparable to putting a patch on an inner tube. It just could be that the old tube is "shot".

If we are to achieve the goals we hold for our children, our schools must apply the utmost ingenuity, imagination and flexibility in the use of personnel, resources, and facilities. Many of the established concepts and traditional techniques of today will have to be replaced by new ones designed to increase efficiency and improve quality. This does not constitute so much of a reflection against past practices as it does a reflection of the changing times and conditions which prevail.

Throughout the United States, experiments with new concepts and practices are beginning to show significant results in improvement of quality. We need now to consider how we can best bring to bear our total educational resources in a massive attack on resistance, on lethargy, and various stumbling blocks to change and improvement of education.

The truth is that this National Center is now unfettered by the deplorable chains of tradition. I pray to God that it will be able to resist some of the evils involved in acquiring tradition.

Stability is both desirable and undesirable. Attainment of stability for a period of time may result in success. After a period of time, stability may result in decadence and failure. Stability in institutional structure makes for maximum output of results which that structure was designed to produce and under the conditions which existed at the time.

Babies are malleable, adapted to learning, and characterized by flexibility. Perhaps they have, (initially) true convictions. The same may be said of agencies of government, such as state departments of education, in their infancy which, incidentally, was more than 100 years ago.

Societies and organizations become brittle, set in their way, and "stiff in their joints" in later years. There is some reason to believe that our organization of vocational education should be likened to a baby in 1920. Outstanding successes were enjoyed for many years. Now there are indications of decadence. This world is continually changing. If we do not change with it, obsolescence is inevitable -- as are those things that go along with obsolescence.

We try to avoid insecurity and reorganization (another name for change).

We resist change because doing something in a new or different way "may set a precedent". If someone could just figure out a way to make changes without setting precedents, we would have a best seller. We do not like to set precedents because we tend to strive for procedures which will apply to all alike. If we do this for one we must do it for all. Then we must only think the situation through once and after that we can do it without thinking via our smooth, comfortable machinery-and-precedent-based operation. If "it" has never been done, it's no good and we will forget it.

Still another reaction is, "How can I be sure this will result in improvement?" From this point we go on to say, "Well, to be sure we had better get a committee and talk this situation over, conduct a survey, and otherwise carefully study the situation." It requires very little talent along these lines to forestall decision-making change for many years. Certainly we do need to study and research, but those who insist upon advance proof before acting will seldom act. When they do, their actions will mean little because the world will have passed them by. Many of our necessary actions must be based upon unproved hypotheses and chance-taking.

Still another reason for evading responsibility or decision-making in regard to action is to say, "That is just another fad." At this point we may suggest that perhaps the new method may go the same way as certain others, thus why should we waste our time upon it. This excuse is a good one, especially for delaying action.

A fourth reason -- and this is very prevalent -- is the viewpoint, "The time is not quite ripe for doing this yet." We go on to say that it sounds like a good idea, it's progressive, forward-looking, and offers great potential, but it's too far ahead of our times, we'll first have to get the people and agencies ready for it.

We have needed a National Center for Advanced Study in Agricultural Education for many years. It seems obvious to me that existing agencies, including the Vocational Division of the U. S. Office of Education, have not been able to fulfill the demands for leadership.

Nevertheless, much inertia has had to be overcome and this took several years before the present National Center could be launched. I am sure that much more must be overcome before the Center can come into its role so vitally needed.

There is no guarantee of success and none can foretell with certainty, the outcome. The situation does not justify the bland optimism which mistakenly assumes everything will turn out all right nor does it deserve the black pessimism that nothing can be done about it.

Often it is said, "We don't have the money." Poppycock! I -- and certainly most of you -- know that we can get money to do the top-priority things if we will just enlighten the proper people and plan ahead. The public is glad to pay for those things which are so obviously worthwhile!

Often times we are told, "Better keep hands off that problem -- it is controversial." The fact is, that any important change is controversial. Vigorous, meaningful life moves forward on the backs of angry, indignant, alarmed, appalled, uncomfortable, hurt, disinherited, alien men and women. For example, when we discuss the duplication of undesirable competition, and wasted tax funds between the FFA and the 4-H programs, what happens? .... Why should we not have one community program in agricultural education?

We had an interesting experience on a building project in our state recently. The opposition endeavored to spike some change for improvement by finally presenting an architect's report which -- in effect -- said, "This kind of a building, etc., cannot be built." This (as is usual on "expert" testimony) was supposed to be sufficient reason to maintain tradition and the status quo. But, the leader of the proponents said, "Hell, fire the architect and let's hire one who says we can do it!" (It worked!!)

If there are no major controversies gripping the attention of your agency, then your agency is dying. It is living in the past rather than the future.

If we are to survive and preserve certain facets of our existence, we must emphasize both continuity and change. Incompatible as these may sound, let us remember everything new must for a while be a fad and nothing worthwhile was ever accomplished without enthusiasm. There are bound to be some fears. Most things worthwhile are controversial. Anything worthwhile costs money or costs something in terms of resources and effort.

We lay great claim to successes in our system of vocational education, and yet how great is this claim? The overwhelming majority of educators throughout the United States frankly recognize the secondary school situation for what it is. Overwhelmingly, these schools are college-prep in nature with very little consideration to the needs for terminal type courses and the great area which encompasses those not going to college.

We are discussing many things today in terms of education generally rather than agricultural education or even vocational education. We do this pointedly because of the recognition that one of our greatest failings has been to delude ourselves into thinking that we are specialists first and generalists second. I say to you, it is vitally essential to assume the attitude that you are first an educator and secondly a vocational agriculture educator.

With the exception of their role in training teachers, which is admittedly of critical importance, the colleges and universities have little influence on instructional innovations in elementary and secondary schools.

Local educational change is primarily influenced by one or more outside agencies. Any plan for improved state organization to accelerate the pace of change and to improve its direction must take many of these factors into consideration.

The State Department of Education exerts a powerful influence on educational change in local schools. In some ways the department is an active stimulus; in other ways it is a serious barrier.

What has been our first reaction (yours and mine) to this criticism? Usually, immediate spontaneous defense of the status quo. Too often people in the local schools, higher education, the state departments of education, assume a defensive attitude rather than giving honest consideration to that which the critics charge.

Too often we have said, "You are a layman. You don't have the picture. You are not a specialist in this area. You don't have enough experience. You don't understand."

Hogwash! You do not have to be a fireman to spot a fire; then why must we assume guilt for setting fire to the schoolhouse? Conditions have been changing and will continue to do so. It is no crime to get behind or to make a mistake. Failure to recognize change, failure to admit some lack of perfection, failure to admit past mistakes and deficiencies, failure to adjust to change, failure to accept available and proven research findings -- these are indictments which may well, properly, and ultimately result in execution.

The truth is that changes are in order and the general public is ready for change. It behooves us to recognize and diagnose the situation or the state of the patient. I say to you that this is not a case for prescribing aspirin, but one which warrants major operations and around-the-clock treatment.

It is my firm conviction that major changes are in order in the field of agricultural education. Maybe my own small part in the conception and the development of this National Center for Advanced Study in Agricultural Education gives me some license to recommend -- to urge -- that the Board and the Director of the Center now come out with aggressive activity to bring about change. Most certainly, I personally have some ideas on the changes that should be made. I may not be brilliant, but I'm not plain stupid; and for this reason I am not at this time about to advise you what changes should be made. If I were to do so, I could not be in a position to consummate these changes and I recognize that no one else is going to carry the torch for "my" changes. Obviously, those most immediately concerned and those who are the decision-makers must determine and enact the changes. I suggest that this National Center can well assume leadership in pointing the direction in facilitating coordination of the efforts of the many who must be involved if the operation is to be successful and in time to save the patient. There has been too damn much complacency and self-satisfaction with the status quo. If you and the special field of education in which you are interested are going to survive and occupy the type of place in our total education program which would be best for society, it is high time you got on the job of expediting change.

We have many "sacred cow" concepts in education -- concepts which current situations and facts will not support. Many of these apply to vocational education as well as education generally. We should look these cows over rather critically, cull many and send them to the butcher.

We must have more and continuing demonstrations of promising innovations applicable to vocational agricultural education. A massive assault on the problems which you have in agricultural education is in order. You need to have many fronts, many armies, and many ideas if you are to achieve the breakthroughs which are absolutely essential.

I suggest that many mature grey heads in education, including personnel in the U. S. Office of Education, State Departments of Education, and universities, need take heed. Let us recall that it was once unreasonable to believe that a man could safely travel faster than 15 miles an hour, yet now we know that man can travel 3,600 miles an hour; that once it was foolish to say that the earth moved around the sun - in fact, it was even criminal. At one point in enlightenment, a famous scientist formulated the principle "that which goes up must eventually come down." This served us well for many decades, but now has been junked. Some of our state plan requirements in vocational education fall im similar classifications. Their content is limited by obsolete concepts!

Let us resolve that no one involved in the National Center for Advanced Study and Research will be identified as a fool or a criminal if he refuses to give automatic approval and advocacy to the old, respectable, but unproven cliches which frequent the field of education, including agricultural education, today. Do not condemn the person who tinkers with a dream that makes little sense in terms of tradition. Please, even give consideration to putting him on a pedestal.

There is some reason to believe we should change our viewpoint on individual project requirements. There may be too many state supervisors of agricultural education working directly with teachers of vocational agriculture and directly with state officers and other individual Future Farmers. Although many of us hide our heads in the sand and rationalize, we are wasting taxpayers' money in fruitless competition and duplication of services between FFA and 4-H. I think this cannot be refuted. Let us also recognize that many times the student suffers by our negligence. In one of our nearby states no decision of consequence in vocational agriculture can be made until this has first been cleared with those responsible for 4-H club work.

I have been a member of the Future Farmers of America as a boy in high school, and an officer of a collegiate chapter of FFA. I served as an instructor in vocational agriculture, and as State Supervisor and Advisor. It was also my privilege to receive the coveted "Honorary American Farmer" degree. I am a solid booster of the FFA. Nevertheless, there are serious questions in my mind as to how long we can justify the present role and amount of time which state department of education personnel spend on details of the FFA program. I forecast that if you who are immediately involved and do not make some changes for yourselves, someone else will determine and implement changes for you. There is a needless waste in providing duplicate services in agricultural education on the adult level.

Let me cite an example, I spoke to a state farm organization recently. During the ensuing question and answer session, some rather pointed questions were directed to me. I finally perceived that these were from agricultural extension supporters critical of vocational agriculture. After a fair amount of needling, I decided to "call a spade a spade", and I proceeded to bring into sharp focus the true situation which existed in that state so far as competition among three services was concerned. The General Extension Service, the Cooperative Agricultural Extension Service, and the public schools in many areas throughout the United States are competing with each other to the detriment of their respective programs.

This made headlines and within 24 hours the president of the land-grant university in the state had contacted the governor, in effect requesting that I be chastized, penalized, and muzzled. The governor, in conference with those concerned, got one hundred per cent agreement that the charges as made were correct and this terminated the discussion.

How many of you present here today realize that state departments of education throughout the United States are undergoing not only changes in attitude and role, but in organization? Do you realize that the current level of prestige enjoyed by state directors of vocational education is being altered through this reorganization? Do you realize that separate divisions of vocational education (and their subdivisions of vocational agriculture, home economics, distributive education, etc.) are being changed in the hierarchy of the organization? Do you realize that non-vocational persons are being more frequently installed as directors of vocational education? Do you realize that de-emphasizing the divisions concerned results in relatively lower salaries and less leadership and ability to fight?

Throughout the United States, what is known in many states as the county school superintendency is assuming a new role. This has definite implications for the role of the state department of education's staff, including supervisors of agricultural education. Traditionally, the county superintendent has performed many responsibilities in the field of general education and relieved the state staff members of many chores. Although this has applied to general education, it has not applied to vocational agriculture. If we are to get the job done in agricultural education, we must get more persons, including the county superintendent, to serve our needs. State staffs must work more with administrators and supervisors and less with teachers and students.

In the same breath, let me say I suggest some of you have not recognized in your planning those things that make vocational agriculture strong and, as a consequence, you do not devote your major efforts to those items which merit top priority.

And when the realization comes home to some of you of what has happened and is happening, you are going to howl like stuck pigs.

Do you realize that the Cooperative Agriculture Extension Service, as part of the United States Department of Agriculture, has underway a master plan which may well bring about major changes in the role and activities performed by vocational agriculture? Do you realize that this master plan, which was formulated in conference with State Extension Service directors and other high-placed officials, is carefully and gradually being executed and implemented? Do you realize that many interpret this to be a plan calling for what we now call County Agriculture Agents to assume jurisdiction over adult education of all types?

Do you realize that many state supervisors of agricultural education, along with other state staff members, because of their legal and dictatorial powers, have come to believe their own thinkings and statements are sacred? Do you realize that although major changes have taken place in the environment, very few changes have taken place in the program of vocational agriculture since 1917? Do you realize that too often you have been defending the status quo instead of recognizing the inevitability of change and actively applying your resources and time to determining the nature of such change?

Do you realize that many forces within state departments of education are being applied to bring about absorption and integration of vocational activities into general education?

For example, teacher education in the vocational fields which has largely been a cooperative effort of the state supervisor of agricultural education and the agricultural education teacher-trainer on the land-grant university, is being transferred to the state department specialist in charge of teacher education generally, with a gradual relieving of responsibility on the part of the state supervisor of agricultural education? Is or isn't this desirable -- and are you for -- against -- or passive?

Is there a possibility that we are breeding today a staff of "softies" who are content to let others determine the changes to be made in agricultural education? Do you realize that there have been some things that have made vocational education strong, but that some of these must now be replaced with others? Do you realize that the battle is never won, that it must be carried on forever?

Do you realize that we have little semblance of a national plan for vocational agricultural education, but that this national center (responsible for our presence here today) may well serve as a rallying point to develop such a national plan? Do you realize that many supervisors have not yet ceased to think of the high school program in vocational agriculture as primarily intended for farm boys soon to become farm operators?

Do you think I am saying these changes, and others taking place, are wrong or undesirable? (I think some of them are desirable and some undesirable.)

Do you realize that vocational agriculture is in serious trouble in many areas and communities and that although the causes of this trouble are easily diagnosed, too often they have not been and more often action is not taken?

Why do you do as you do, and why don't you do something different? The most prevalent reason that I have observed is, "We have always done it this way and we have never done it that way."

Do you realize that very often we are guilty of intensive inbreeding in our organization with compounding of weaknesses resulting? Do you realize we are often too close to the trees to see the forest - that oftentimes inexperienced and/or youthful outsiders can see us and our programs better than we ourselves can? Yes -- the image is poor -- but -- are you certain it is inaccurate? Are you -- or the public deluded?

Do you realize that state supervisors of agricultural education traditionally and nationally have been so wrapped up in agricultural education, as somewhat narrowly defined by the "Vocational Acts", they failed to recognize their responsibilities for influencing and supervising agricultural education not so encompassed? Thus, we in agricultural education have overlooked and been deprived of the very thing which could keep us from decline and decadence.

Do you realize that it is imperative that you first be a member of a state department of education and secondly a specialist in your chosen field? Do you realize that the role of state departments of education throughout the United States is changing at a fantastic pace? For these reasons, if you are not first of all a member of a state department of education and only secondly a specialist, you are going to be shunted aside with others determining your future.

Let me raise another question. Although, as Drs. Hamlin, Taylor, Bjoraker and others are well aware, I had a part in the inception of this National Center, I am not entirely certain that vocational agriculture can or should stand alone as a national center any more than a vocational agriculture teacher can stand apart from other teachers. I say this because of other needs which were forceably brought to my attention when I visited, studied, and interviewed commissioners of education and key staff members in all of the 50 states. There is now a movement to develop and launch a plan for a national center for advanced study for state departments of education generally. It is my privilege to be involved in this development, and let me say that I visualize it as something which might well compliment the National Center for Advanced Study and Research in Agricultural Education. There would be some advantage in having these two centers on the same campus, thus recognizing mutual needs and the achievement of economic units perhaps not otherwise possible.

Regarding the changing role in state departments of education, let me comment on some pertinent facts. Since the beginning of state departments and Horace Mann's activities in Massachusetts about 1840, state departments of education have been primarily concerned with

inspection, record-keeping, standardization, and compliance-checking. We have kept statistics and counted toilets, measured windows and the candlepower of light bulbs. You in vocational agriculture are no different than the rest.

We recognize that:

1. Traditional state department of education functions and activities have become outmoded, no longer essential.
2. State departments of education have not generally responded to the changing need.
3. We have been guilty of trying to perpetuate the status quo.
4. In many states, state departments of education have served as obstacles rather than assistants to change and improvement.

State departments of education have been almost at the bottom of the educational hierarchy--to the detriment of our schools. The justification--and it is the only justification--for changing the role of the state department of education is the changing needs of our public schools.

We have had:

1. Low level of training of staff.
2. Low salaries of staff.
3. Inspection rather than leadership (not to be confused with dictatorship).
4. Failure to influence teacher education.
5. Failure to adequately influence selection, retention, and recruitment of teacher education candidates.
6. Failure to take advantage of research findings in education to keep practice and research together.
7. Failure to pinpoint responsibility for change and improvement.
8. Failure to coordinate activities and objectives of the various levels of education.
9. Failure to build state departments of education with the necessary ability and strength to fight the battles involving federal aid and control of education.

State departments of education are now turning sharply away from these traditional functions and abruptly heading toward new directions in leadership. The consultant and leadership phases of activity are replacing those inspectoral and compliance-checking activities denoted by the word "supervisor", which has long been a misnomer and an undesirable one at that. Increasingly, state departments will be providing leadership, inspiration, and assistance to local schools, with more actual decision-making really being given to those in the public schools rather than the high degree of just "lip service" which now exists so far as this concept of local autonomy is concerned. Increasingly, state department of education staff members will influence others who are working with teachers and students rather than working directly with students and teachers, to the extent that we have known up to this time. This has strong connotations for those in agricultural education.

The role of research, of field testing, and encouraging implementation of desirable change best describes the state department of the future. Let me call your attention to the color transparency which we have here now and which illustrates better than words that to which we refer.

Summary

This National Center for Advanced Study has a tremendous potential. It seems to me that it should be characterized increasingly by several qualities. Certainly it should be struggling and striving. The factors of choosing and selecting should be continuously evident. Decision-making should be a continuous thread throughout. The activities should be exciting and give the participants an exalted feeling. The activities should, furthermore, be strenuous

and aspiring. The Center needs to be characterized by constant, restless searching for better ways of doing. We have not been so oriented. This National Center for Advanced Study and Research may well serve as a focus of operation for a new day in vocational agriculture.

There is an urgent need for change to achieve improvement. I think this National Center might well serve as the focal point to seek out the needed changes, to define them and to evaluate progress. The need for advanced training of personnel is of paramount importance in my opinion, and this should be the dominant feature of a national plan to achieve program improvement.

To Dr. Taylor and his advisors I say, "The need is here. It is getting late. The potential is unlimited, -- if you use vigor and freedom, unfettered by the chains of tradition."

Abraham Lincoln said to the second Civil War Congress:

"The dogmas of the quiet past are inadequate to the stormy present....we must disenthrall ourselves and then we may save our country."

Finally, let me remind you of the theme or keynote for this national seminar: "Keeping up with change is the key to survival; creating change is the key to leadership." Let's get on with the job.

Thank you.

LEADERS OR FOLLOWERS?

by
Roy M. Kottman
Dean, College of Agriculture and Home Economics
The Ohio State University
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I am pleased to have been given this opportunity to take part in this National Seminar which is dedicated to the concept that "keeping up with change is the key to survival; creating change is the key to leadership." I very much regret, however, that a meeting of the North Central Experiment Station Directors held in North Dakota precluded my being with you for the previous sessions of this Seminar.

A review of the names of those who have already spoken to you as well as the roster of those of you who are participating in this Seminar is indeed impressive. I am confident that much good will come from your deliberations here. May I assure you that the College of Agriculture and Home Economics of The Ohio State University is honored to have been chosen for the responsibility inherent in the establishment of the National Center for Advanced Study and Research in Agricultural Education. This is a responsibility which we do not take lightly. As Vice President Mount very likely informed you, we did not exert all of the effort which was required to attract this Center to Ohio State with the thought that once we had secured approval for its establishment we would "rest on our oars." Conversely, we "pulled all the stops" to attract the Center to this campus because we are sincere in our belief that vocational agriculture in this country is still a youthful and dynamic force -- on the threshold of new worlds to conquer, if you will -- and we believe that through both the dedication and the devoted efforts of men like yourselves, the future of vocational agriculture in America will be even more illustrious than its achievement-filled past.

My comparatively limited experience leads me to believe that the world always has been and always will be looking for leaders. Everybody, no matter how humble or how prestigious his station in life, wants and needs the inspiration of great ideas and lofty ideals. Each of us needs the encouragement which can be provided us by dedicated men to whom we can turn in our moments of indecision and of wavering self-confidence. Mankind seems to feel an urgency to espouse causes, to rally around leaders, and to experience the strength which flows from a leader to the group for which he provides leadership. From these intangible sources often comes our spiritual strength and our will to succeed.

One of our most challenging responsibilities as leaders is the continual and continuing assessment of where we are, where we have been, and where we are going. How many of us can say that we have really taken time out from our busy lives to contemplate the kind of world we would be living in if our American agriculture had achieved no greater efficiency than that of other countries in the world? What would be our image in the underdeveloped areas of the world if we were to report, as has Mr. Khrushchev on occasion after occasion, serious failures in the agricultural sector of our economy?

In my attempts to analyze why our fellow Americans are looking askance at those of us in agriculture when, in fact, they have every reason to laud our accomplishments, I am led to believe that at least one of the underlying reasons for adverse attitudes toward agriculture stems from the simple fact that our American people are not really very greatly aware of the fact that food has not only been a major factor in our winning of two World Wars, but it has since the end of World War II, over a period of nearly 20 years, been used as a major instrument of United States' foreign policy! When we think of the cost of one day of World War II (an estimated $150 million per day) or if we look at the cost of the space program effort which preceded getting our first American astronaut into orbit (an estimated $7 billion) the present investment in tax-supported agricultural research and education in this nation is by comparison but a "drop in the bucket."

Yet, our American people seem to have great difficulty in dealing with this historically unprecedented problem of a nation perennially able to produce more food and fiber than its people can consume, than can be exported, or than can even be given away! Putting it another way, we in agriculture are the victims of our own phenomenal success. We have made it possible for this nation to enjoy an abundance of food and fiber such as has never before been known in the history of the world. We have been tremendously effective in applying the scientific method to unlock the secrets of nature in our research laboratories. Likewise, through our Extension Service, our vocational agriculture programs, and through our collegiate resident instruction programs, we have been almost alone in the world with respect to sponsorship of programs which have been truly effective in disseminating the fruits of agricultural research to the people who can make operational use of research-derived information

It is especially noteworthy that the successes of our agricultural scientists in the past have not made them content with those accomplishments despite the fact that there are those who unwisely advocate the reduction of scientific effort in agriculture because we have been able to produce more food and fiber than the market place can profitably accommodate. It's curious, isn't it, that while production facilities now available to the automobile industry, to the aircraft manufacturers, to refrigerator manufacturers, and to the makers of calculating machines make it possible to produce more automobiles than the world market could ever purchase or more airplanes, more refrigerators and more calculators than there is a market for, yet we hear no one advocating that we attempt to hold back research or education in mathematics, physics or engineering. Nor have I heard anyone urge that we reduce the support for the colleges or schools in which these subjects are taught. On the contrary, most people seem to think such activities are highly respectable and that it is most desirable that we continue research and education which will make it possible to improve our automobiles, to improve our airplanes, to improve our refrigerators, or to improve our data processing machines, thus making possible greater efficiencies and more enjoyment from the use of these products.

It seems to me that our American people, our legislators, and even some of the members of our university community are guilty of hopelessly confusing the economic problems of doing business in widely differing areas of our economy with the diverse roles of educators in their ongoing responsibility to "make the best better" through research and education. It seems to me that wide variations in structure and organization of divergent sectors of our economy relative to bargaining power are not properly the considerations which should be used in determining the amount of support which should be provided to any area of our endeavors in research and education.

It would seem far more appropriate to me, at least, to be concerned about doing everything possible to improve the efficiencies in that sector of our economy which requires an outlay of about 20 per cent of total consumer income, namely our food bill, than to be imbued with thinking about ways of reducing our research and educational efforts merely because, at the moment, our American farmers have excess capacity for the production of food and fiber. The problem, as I see it, is not one of agriculture being too efficient. It is rather a problem of insufficient effort having gone into the devising of appropriate systems through which all members of our nation's agribusiness complex can attain a more equitable return for their efforts.

I think it is of utmost importance for all of us in this room to resolve to do a better job of telling our fellow citizens about the dramatic and exciting story of what our American agriculture really is in this year of 1963!

We must not let our fellow Americans forget that hunger is still mankind's greatest enemy. In the barren areas of northeast Brazil, 23 million people constantly face the threat of starvation. In Hong Kong, hundreds of thousands of Chinese sleep on sidewalks or on rooftops, or in little huts clinging to the hillsides and awake each morning to experience anew the gnawing pains of relentless hunger. Certainly, from a humanitarian standpoint, we cannot forget that malnutrition affects to varying degrees nearly 2/3 of the world's 3 billion human beings. Contrast this picture with the fact that here in America we have billions of bushels of grain over and above our needs--that we're blessed with the problems of trying to adjust to the challenge of abundance!

One would think that the recent rise in sugar prices, based not on the fact of scarcity, but merely on the anticipation of scarcity, which caused prices of sugar to double, would cause our American people to pause and count their blessings. Think what would happen to this nation's food bill if we had just one-half of one per cent less food than it takes to feed our people. The cost to the American people of just that small fraction of scarcity would be fantastic compared with the modest outlay which we are annually putting into agricultural research and education.

It is of utmost importance for each one of us to assist in making clear the interdependency of all segments of modern agriculture. This achievement of public understanding I would rate as our No. 1 challenge. Without such understanding the support for further development of our agricultural sciences will dwindle. Without broad understanding of the importance and scope of modern agriculture, we cannot hope to effect those changes in government, in our educational institutions and throughout the agricultural industry itself, which will enable agriculture to continue to make its maximum contribution to the achievement of our overall national economic goals.

As all of you in this room know so well, agriculture is much more than farming. Nonetheless, farming constitutes a very important part of our national economy. (Chart 1)[1] As of the 1960 census there were approximately 3,700,000 farmers in the United States. They gross more than $38 billion in annual sales! Not too many of our fellow Americans have stopped to think about it, but today's farmer would be virtually helpless without the supply and service industries which provide him with the inputs of agricultural production. Each year our American farmers pump $25 billion into the economy as an outlay for their annual production expenses. I have stated to many groups that today's farmer without the off-farm agribusiness suppliers of agricultural inputs would have difficulty producing enough food to feed his own family. In most instances he would not have any source of power. The only things he could produce would be what he could manage with a hoe and a shovel. Think of it! The off-farm supply and service agencies are just as important to modern agriculture as is the farmer himself. Together they comprise a team -- a team which we might refer to as one pair of the five strong partners of the "agribusiness" team. Modern farming can no longer appropriately be described merely as a way of life. It is, in fact, a rapidly changing, highly capitalized and highly complex business enterprise. Let's consider briefly the dimensions of the farm production supply and service business in the United States. (Chart 2)[2] In the first place, it employs 5,600,000 people. It has an annual payroll of over $24 billion!

Just as our farmer of today would have difficulty producing anything larger than a family garden without the off-farm supplies and services which he purchases, so would he have difficulty in realizing a decent income from his agricultural products were it not for the marketing and processing agencies which take agricultural products from the farm gate and give place and form value to them. (Chart 3)[3] In the United States today there are 26,000 business firms which process agricultural products. These firms employ 3,000,000 people and they have a $14 billion annual payroll. They add $30 billion in value each year to the worth of the produce which leaves the "farmers' gate".

Still a fourth segment of modern agriculture (Chart 4)[4] is the wholesaling of agricultural products -- moving them through the channels of trade and on toward the consumer. This segment of agribusiness employs 1,000,000 people. Its annual payroll amounts to $4 billion and there are nearly 88,000 such firms. Their annual sales are in excess of $100 billion.

Retail sales of agricultural products (Chart 5)[5] in the United States account for over 3,000,000 employees, an eight billion dollar estimated annual payroll and over $61 billion of estimated annual sales. These sales are made in over 800,000 retail establishments throughout the country.

In the aggregate, somewhere around 16 million of our 67 million employed workers in this country are to varying extent involved in just the business or commercial aspects of what can be logically included in modern agriculture. That's 24 per cent of our total labor force -- a far different figure than the 10 per cent we hear so much about when only our farm workers are included in the definition of "agriculture".

Not one of the five segments of agribusiness to which I have referred can survive, let alone prosper, without the benefits of a continuous and continuing source of up-to-date information and that, of course, is where our schools and colleges of agriculture, our vocational agriculture programs and our other educational efforts in agriculture fit into the picture. Through our research and educational programs we provide a means for infusing the lifeblood of improved know-how into the veins of the agribusiness entity.

Those of us in agricultural education have a responsibility to provide a source of trained manpower for America's growing agribusiness complex. We have an opportunity to assist in upgrading the techniques of management in food stores, in elevators, in milk plants and throughout all agribusiness firms. It's a part of our responsibility to train students who will fill key positions essential to the management of these business organizations. It's our job to provide know-how through research and education, not only for those who manage the 3,700,000 farms of our country, but equally important for all those who manage our many thousands of off-farm agribusiness establishments. In Ohio, for example, we have

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[1] U. S. Census, 1960.
[2] Ohio State University, Department of Agricultural Economics and Rural Sociology.
[3] 1958 Census of Manufacturers, U. S. Department of Commerce.
[4] 1958 Census of Business, Wholesale Trade, U. S. Department of Commerce.
[5] 1958 Census of Business, Retail Trade, U. S. Department of Commerce.

125,000 off-farm agribusiness establishments which may be compared to a total of only 140,000 farms. I believe you would be impressed by the comparable figures for your own state.

In the midst of many expressions which convey considerable uncertainty about future opportunities for young people in agriculture, I find myself tremendously optimistic about future opportunities in agriculture! It seems to me that those of us who are privileged to work in agriculture have a tremendous story to tell -- a thrilling success story which we can back up with a host of facts. I know that you must get just as weary as I do of having people in your own community tell you that agriculture is not as important in your state as it used to be or that agriculture is a declining industry. The people who say these things usually try to back up their contentions by pointing out that there are 40,000 or 100,000 or whatever number it may be, fewer farms in the state today than there were just 10 years ago, but the thing they won't tell you, because they don't know it (Chart 6)[6] is that we're producing 15 billion more pounds of milk each year than we produced in this country 20 years ago. We're producing 3 billion pounds more of pork, 15 billion pounds more of beef and veal, nearly a billion pounds more of lamb meat, 5 billion pounds more of chicken meat, a billion pounds more of turkey meat and 2 billion dozen eggs more than we produced 20 years ago. We harvested nearly 50 per cent more corn in 1960 than we harvested in 1940 -- 1.4 billion bushels more; we harvested 400 million bushels more of soybeans; 300 million bushels more of wheat; 450 million bushels more of grain sorghum and 24 million tons more of hay than we harvested just 20 years previously. Yet, in spite of the overwhelming impact of these figures, people will stand up, look you right in the eye, and tell you that agriculture (which, of course, they think of as farming) is declining in importance in this country. Well, these figures just don't sound like a declining agriculture to me. And these are the figures on the farming segment of agriculture only! For anyone to say that agriculture is declining in importance in this country or in your state or mine would mean that they would probably also say that the automobile industry in the United States is a declining industry. Why? Because 20 or 30 years ago we had more manufacturers of automobiles than we have today. It would make about the same kind of sense as it does for the public to look at the declining numbers of farmers in this country (or in your own state) and say that agriculture is a declining business merely because we have fewer farmers. The farming side of agriculture is far and away our nation's biggest industry, but when we think about the additional off-farm agriculture that is required in supplying the goods and services needed for this much production, and when we think about the marketing and processing of this much product, to say nothing of the distribution of this product to the ultimate consumers, we can readily see that the sum total of modern agriculture is a tremendously huge, dynamic and growing business -- a business which requires more research and more education and more trained manpower with every year that passes.

We could go on and on digging up figures concerning what has happened to our nation's agricultural production. For example, we have had a 350 per cent increase in the value of horticultural specialties sold in the United States during the past 20 years. The value of fruit and nut sales has gone up 2½ times in the same period. We produced 3 billion cubic feet more lumber in 1960 than we did in 1940. That's a 36 per cent increase in the production of timber in just the last 20 years.

We have had much the same kind of growth throughout the off-farm segments of agriculture. The commercial feed business is up nearly 400 per cent in the last 20 years; purchased seed is up 173 per cent; fertilizer and lime up nearly 400 per cent! Where is this decline in agriculture that parents are relating to their sons and daughters and thus tending to diminish or destroy their interest in agriculture? Well, it's true that we have 39 per cent fewer farms in this country than we had just 20 years ago, but we've got five per cent more acres in farms -- five per cent more acres in farms than we had 20 years ago! The cropland harvested is down only 3.2 per cent despite government programs to reduce acreages. Yes, we do have fewer farmers. It is also true that fewer cows are producing our tremendously increased milk supply. Fewer hens are laying our tremendously increased number of eggs. It is overwhelmingly true that agriculture in the United States reflects what the free enterprise system is supposed to reflect -- increased efficiency. (Chart 7)[7] Farm production per man hour has gone up 185 per cent in the last 20 years. Crop production has gone up 203 per cent. Livestock production has gone up 89 per cent. Our total farm production is twice what it was in 1910, and it's up 25 per cent from 1950. The labor going into farm production is less than half of what it was in 1920.

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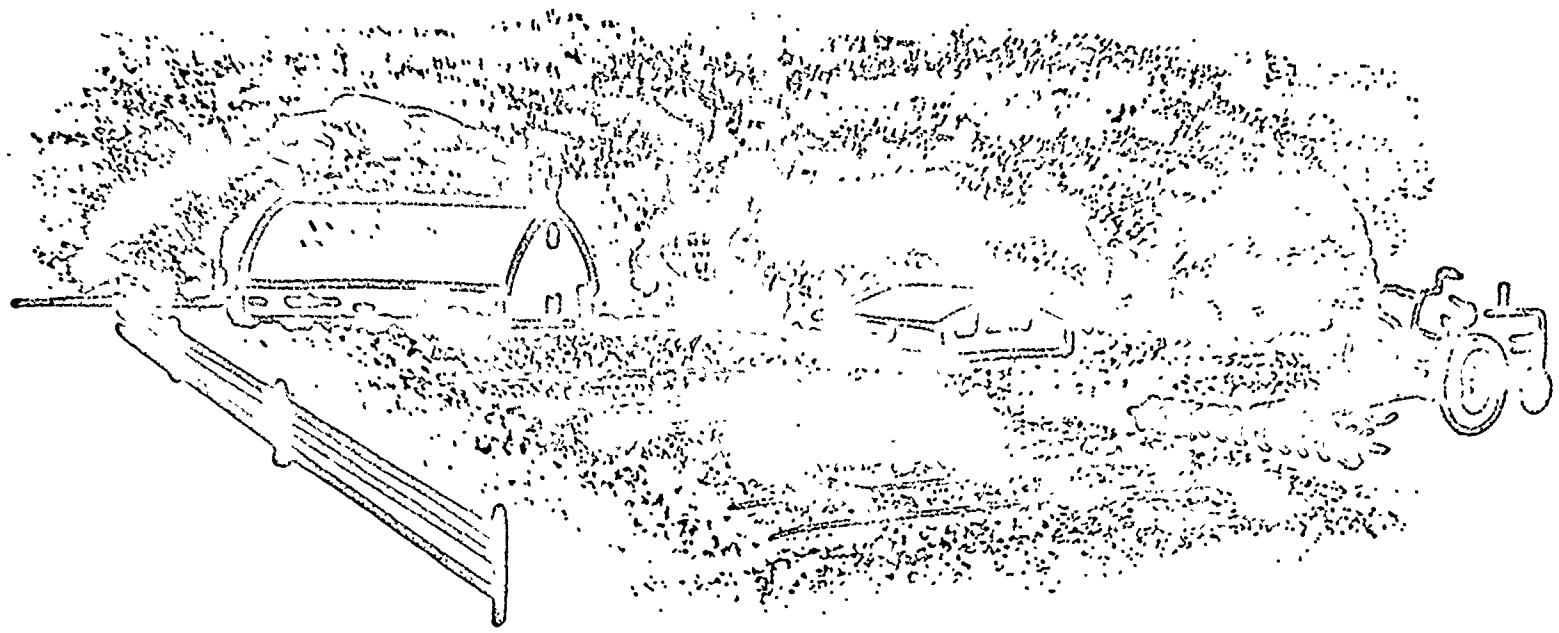
[6] U. S. Census of Agriculture.
[7] Ibid.



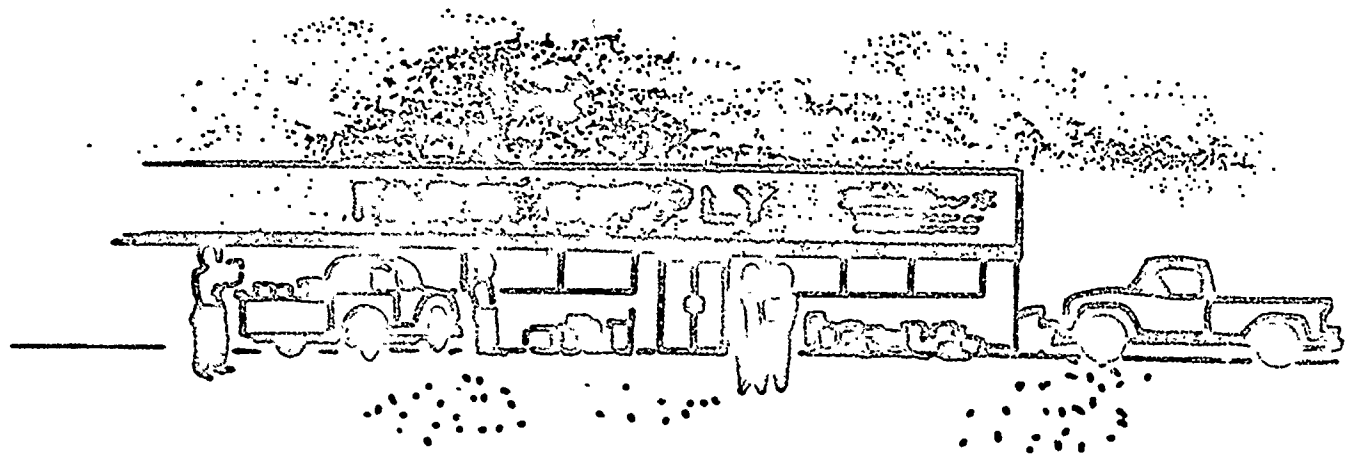
FARM PRODUCTION

3,703,642 FARMERS

38 BILLION DOLLARS ANNUAL GROSS INCOME

25 BILLION DOLLARS ANNUAL PRODUCTION EXPENSES

CHART 1

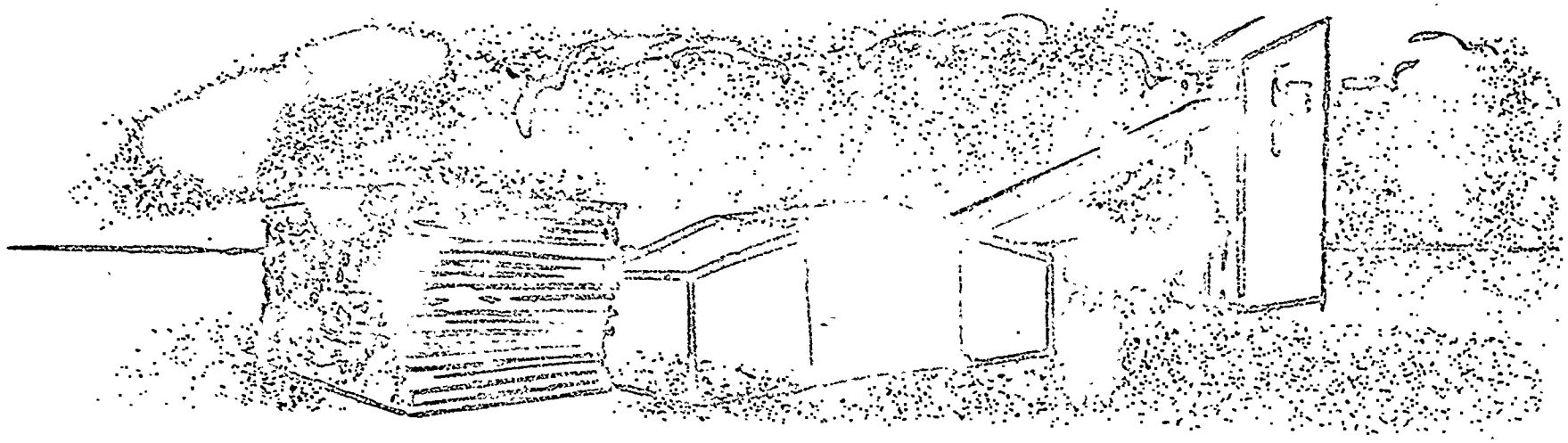


FARM PRODUCTION SUPPLY AND SERVICE

5,600,000 EMPLOYEES

$24,080,000,000 ANNUAL PAYROLL

CHART 2



PROCESSING OF AGRICULTURAL PRODUCTS

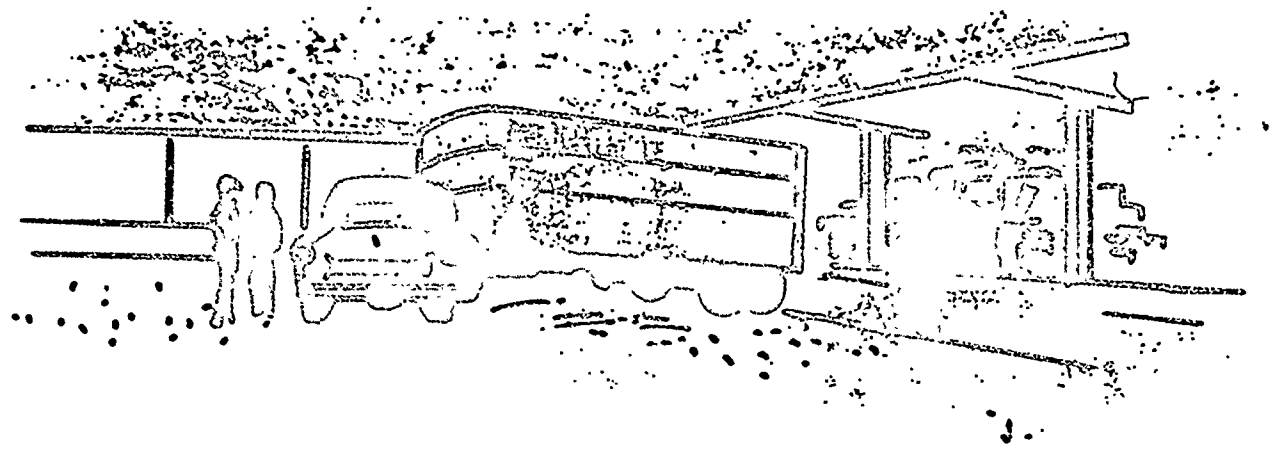
3 MILLION EMPLOYEES

14 BILLION DOLLAR ANNUAL PAYROLL

26,000 ESTABLISHMENTS

30 BILLION DOLLARS VALUE ADDED ANNUALLY

CHART 3



WHOLESALING AGRICULTURAL PRODUCTS

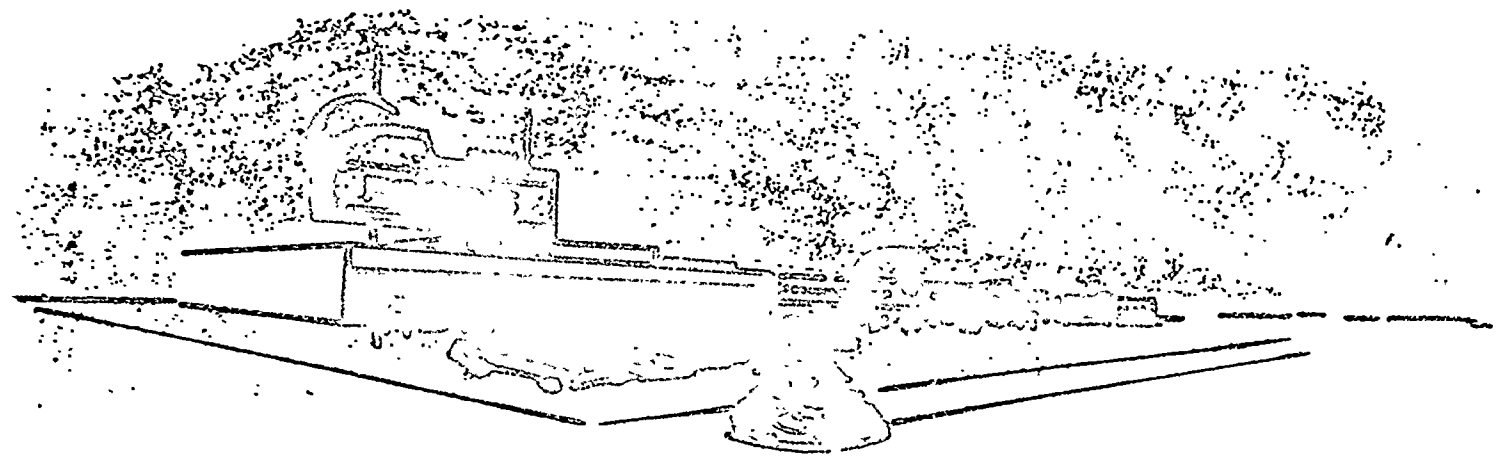
NEARLY 1,000,000 EMPLOYEES

NEARLY 4 BILLION DOLLARS EST. ANNUAL PAYROLL

87,966 ESTABLISHMENTS

NEARLY 105 BILLION DOLLARS EST. ANNUAL SALES

CHART 4



RETAIL SALES OF AGRICULTURAL PRODUCTS

OVER 3 MILLION EMPLOYEES

OVER 8 BILLION DOLLARS EST. ANNUAL PAYROLL

OVER 800 THOUSAND ESTABLISHMENTS

OVER 81 BILLION DOLLARS EST. ANNUAL SALES

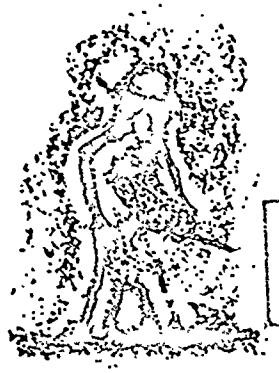
CHART 5

NATIONAL INCREASES IN FARM PRODUCTION, 1940-1960

	Millions	Percent		Millions	Percent
Milk (lbs.)	15,000	14	Eggs (doz.)	2,000	63
Pork (lbs.)	3,000	16	Corn (bu.)	1,400	59
Beef and Veal (lbs.)	15,000	90	Soybeans (bu.)	400	489
Lamb (lbs.)	1,000	96	Wheat (bu.)	300	49
Chicken (lbs.)	5,000	1200	Grain Sorghum (bu.)	450	865
Turkey (lbs.)	1,000	186	Hay (tons)	24	29

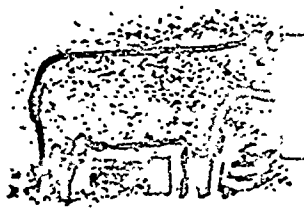
CHART 6

FARM PRODUCTION
1940-1960



PER MAN HOUR — UP 185%

CROP PRODUCTION — UP 203%



LIVESTOCK AND LIVESTOCK PRODUCTION — UP 89%

TOTAL FARM PRODUCTION

TWICE 1910
50% OVER 1940
25% OVER 1950

LABOR IN AGRICULTURE

LESS THAN HALF 1920

CHART 7

In just the last 10 years we have seen these kinds of changes. (Chart 8)[8] Labor going into farm production has decreased 33 1/3 per cent. The production of meat per animal is up 20 per cent. Yield per acre on our farm crops has increased 30 per cent. The number of tractors as a measure of mechanization is up 40 per cent and the use of chemicals has gone up 50 per cent. These tremendous changes reflect the true picture of agriculture -- a growing, expanding, dynamic segment of America's economy. When we consider all five phases of modern agriculture and if we stop to think that agriculture means food and fiber and food and fiber have to do with people and that people in this country are multiplying very rapidly, then this whole picture comes into focus. It's a picture which indicates the importance to each and every community of having a strong and healthy agriculture surrounding it. Why? Because for every dollar of new wealth produced on our farms, there are three to five dollars worth of new business taking place on Main Street. Never forget it!

It can be shown that for every four cows, producing 10,000 pounds each, that are put into production, there will be three to five thousand dollars additional business on the Main Streets in the surrounding towns and cities. The same can be said for every 10 brood sows and for every 50 steers that are fed, for every 21 beef cows producing calves and for every 600 laying hens. Our city people have a greater stake in what happens to the good earth and the people on it than they realize.

I am confident that few people in this great nation of ours know or fully appreciate that agriculture is the base upon which we in America have built our industrial power and our military might and, for that matter, our world leadership. Take away our agricultural supremacy and you take away a vital ingredient of our world leadership. Think it over! In Soviet Russia after 46 years of plan upon plan and purge upon purge, the Communist system has not yet been able to feed its people with what you and I would consider an adequate diet. As. Mr. C. D. Siverd[9] has stated, "Their (the Soviets) problem is caused neither by lack of land or manpower. It does not stem from a shortage of machinery or know-how.

"It exists because of a basic misconception. The key to success for agriculture is <u>individual initiative</u>. You cannot manage a nation's agriculture from a central bureaucracy.

"It might be possible to force productivity from 3,000 men tied to an assembly line in an industrial plant. But 3,000 men spread over 15,000 acres is another matter. No blueprint... no set of directives... can anticipate and deal with the hundreds of individual decisions and actions required on a well-run farm.

"If social theorists are looking for graphic differences between ours and the Soviet system, they would do well to look <u>first</u> at agriculture.

"Yet... as we look with pride and confidence at our own agricultural accomplishments we would be wise to take more notice of a shortcoming which has every possibility of becoming a serious matter in the future.

"American agriculture depends upon skillful people. Without an abundant supply of trained... capable and specialized teachers, our schools of agriculture could not continue the high standards of education they now contribute.

"Unless there is a reserve of experts in all areas of agricultural knowledge... government, both federal and state... might not be able to provide the wide range of services they now give to the business of agriculture.

"As a representative of industry... dedicated to agricultural products... I can tell you that the future of our business... and its ability to continue to make a worth-while contribution... depends completely upon the trained people who will be working in our laboratories and testing stations in the years ahead.

"<u>The problem that seems to lie ahead for American agriculture is not the overproduction of food and fiber... but the under-production of trained agricultural people</u>." (End of quote)

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[8] Ibid.

[9] Siverd, C. D., "Agriculture - Abundance or Shortage?" Address presented at the New Jersey County Agent Award Program, Princeton, New Jersey, November 9, 1961. Mr. Siverd is General Manager, Agricultural Division, American Cyanamid Company.

I am certain that all of us are in agreement with Mr. Siverd. It seems to me that it is your job and mine to do everything we can do to provide a quality of agricultural leadership for our American youth so that our economy and our well-being as a nation will never, even in the far distant future, be hampered by the under-production of well-trained and capable people for agricultural pursuits. Agricultural leadership is clearly our mission--it's what we are paid for! We must always consider ourselves as being primarily leaders rather than followers. One of our jobs as leaders in agriculture today, as I see it, is to tell the dramatic success story of agriculture over and over again in just as factual and in just as compelling a manner as we can possibly tell it. In addition, we must conduct ourselves, as teachers, as research workers, as administrators and as citizens, so that what we do and what we say will have a really forceful impact. That's what this seminar is all about -- a rededication to what we know is true, to what we know is right, and to what we know to be the real needs of agriculture in the years ahead. Such a rededication is not only a tremendous challenge, but it is likewise a tremendous opportunity! You wouldn't be here if you didn't think so and if you didn't welcome, just as I do, the competitive aspects of that challenge and that opportunity.

One of the most compelling reasons why there is this challenge and this opportunity of which I speak stems from the realities of the human population explosion which is taking place -- an explosion in numbers of people not only in Ohio, but in each of your states and throughout the United States and throughout the world. By 1980, it is predicted we may have as many as 240 million people in the United States. We passed 188 million people on January 1 of this year. Every 11 seconds there's one more person alive in this country. As we meet here today, there are 8,000 more mouths to feed than there were yesterday at this time. From a world-wide standpoint, population is increasing at a rate of two per cent a year. We now have 3.1 billion people on the face of the earth. By the end of this century -- by the year 2000 -- there will be 6 billion people. Let me put that another way. That means that each three years there will be as many additional people on the face of the globe as presently live in the United States. Think of it! Another country the size of the United States is coming into being each three years.

Several months ago, I put pencil to paper in an attempt to get at the size of the effort required to meet the food needs of our Ohio population just 17 years from now. You may have done the same type of calculation for your own state. If you haven't, I think you would find it interesting to do so. Here in Ohio we will add over 2 million people to our home-state list of customers for agricultural products between 1960 and 1970. Our population projections in Ohio are to the effect that there will be close to 12 million people in this state by 1970 (there were 9.7 million in 1960) and perhaps 14 or 15 million in our state by 1980.[10] What does that mean? Well, for one thing it means that if we can produce 700,000 additional 1,000-pound beef cattle 17 years from now -- 700,000 more than we are now producing -- Ohio's expanded population can be fed on Ohio-produced beef. In 1961, we marketed 770,000 beef cattle here in Ohio. So in just 17 years, we can, if we compete successfully for the market, nearly double our market for fed cattle in Ohio. If we are to feed out this many additional cattle, however, it will require more than 80 million additional bushels of corn. The production of this much additional corn in Ohio would require a major effort in research and education because this would be more than a 30 per cent increase in corn production.

One can make similar projections of future needs relative to pork or poultry products or to milk and come up with some very exciting figures. We have done that for Ohio and have come up with a figure of 7½ billion pounds additional food to be demanded in this state by 1980. This tremendous increase in Ohio's agricultural capability is not going to "just happen" if it does indeed become a reality. Somebody, and a lot of somebodies -- I am looking at some of them in this room -- are the people who will make a mighty significant contribution toward making this come to pass. I am convinced, however, that it will not come to pass if we who have the responsibility for education in agriculture fall into the fallacy of thinking that because we are taking cognizance of changes taking place in agriculture that we have thereby discharged our full responsibility as educators. Those of us in educational work, whether we wish to take credit for it or not, are the members of society who, along with our counterparts in certain areas of government and industry are, in large measure, responsible for the initiation of the avalanche of changes which are at once both the bane and the boon of our society. In this connection I should like to make the point that we who are in education must, if we are to give truly distinguished service to the society which supports us, be concerned always with giving leadership for change as opposed merely to reacting to changes

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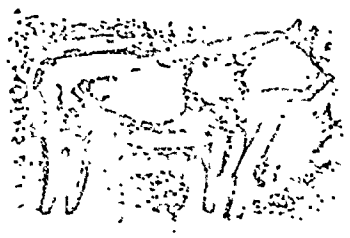
[10] Source: 1. U. S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-25, No. 251, July 6, 1962. 2. U. S. Census of Population 1960, United States Summary PC (1) 1C.

FARM EFFICIENCY

1950 - 1960

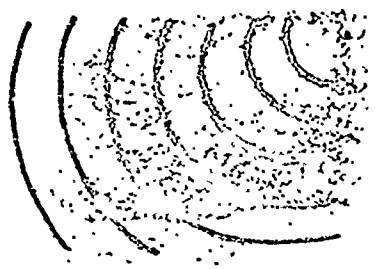
DOWN 33⅓%

UP 20%



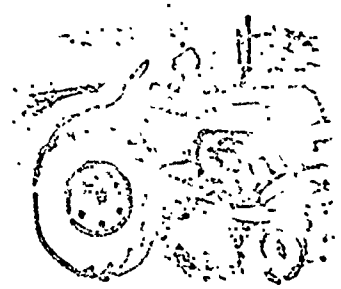
MEAT PROD. PER ANIMAL

UP 30%



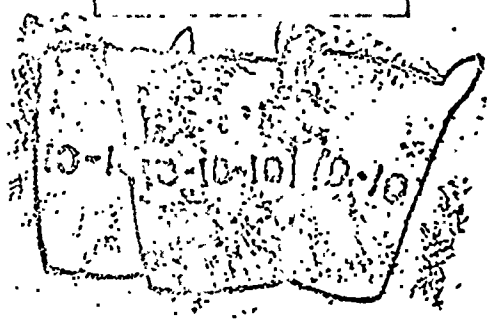
YIELD PER ACRE

UP 40%



NO. OF TRACTORS

UP 50%



USE OF CHEMICALS

which are taking place throughout the society which we serve. It seems to me that we can give leadership for change only to the extent that we are willing to upgrade ourselves and every facet of the programs with which we deal -- not just this year or next -- but in every succeeding year throughout our entire span of life. We must, so it seems to me, make it a point to be better educated in each succeeding year even though we may find it exceedingly difficult not only to keep up but, more importantly, to keep on top of the explosion of knowledge which surrounds us. I am sure that we must do better in the future than we have done in the past. Too often, I fear, we have accepted the path of least resistance on all too many occasions. Now, in spite of all the excuses which can be offered to the contrary, we must insist on higher standards for ourselves, insist on higher standards for administrators, insist on higher standards for supervisors and, yes, even higher standards for selection to the field of agricultural education than we have ever insisted upon before. Can we do these things? I think we can! The creation of this Center by you and your colleagues -- the very fact of your being here for this seminar -- indicates to me that we can and that we will do "what it takes" to be the increasingly more capable people that we really want to be. These developments indicate to me that vocational agriculture in the United States will not relax in its efforts to develop ever-improving programs which will attract to them the highest quality of students. To achieve these goals will require ingenuity; it will require some changed attitudes; it will require salesmanship; and it will require the closest working relationships among our teacher-training institutions, our state department supervisory personnel, our state department administrators, our local school administrators and their school boards and, perhaps most importantly, among our teachers of vocational agriculture who are out "on the firing line."

As Mr. Siverd[11] has said, "The combination of less farmland... fewer people on the farm... tremendous population growth... and the growing shortage of agricultural specialists could turn out to be a loaded gun held against our national future.

"This need not be if we can continue to progress in our skill and ingenuity in producing more food with less risk... more efficiency... and less people.

"The margin, of course, is in the trained agricultural people we are talking about---

"Few young people really understand the demands and the opportunities which exist for them in modern agriculture.

"Somehow or other the 'image' of agriculture persists in many minds as a matter of tilling the soil and wresting a meager living from the reluctant earth.

"Apparently, we have not successfully communicated the facts to enough talented students.

"Somehow the imagination of youngsters must be captured to help them see that modern agriculture offers almost unlimited challenges and opportunities to a wide range of talent. Along with farm operation, today's agriculture needs biologists... engineers... chemists... marketing experts, and even people who are going to apply high speed computers to the problems of food production. In fact, there is hardly an art or science which is not in demand in the present and future business of agriculture.

"In a nation which thinks nothing of proclaiming 'tag day'... 'groundhog day' and the annual 'Miss Rheingold Election', it seems incongruous that we cannot organize a program which would use people-to-people communication to promote better understanding of agriculture and agricultural education.

"If we are not able to do this, we might some day find ourselves discovering... that in the end... Malthus was right." (End of quote)

I, personally, am convinced, however, based on my observations of the land resource on several continents as well as in our own great country, that we can feed the world's people for countless generations to come if we who have the responsibility for agricultural education devise ways and means of educating our students so that they will be in a position to give truly enlightened leadership to desirable changes. If we do accept this point of view as not only our prime responsibility but as our major challenge, we, as educators, have cut out a sizeable job for ourselves, and, perhaps more importantly, we have committed ourselves to an exciting and worthwhile educational approach. In accepting such a challenge we must

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[11] Siverd, loc. cit.

ask ourselves repeatedly whether we are, in fact, meeting the challenges of the changing world in which we live and at the same time developing leadership for further changes through adjustments in our educational programs. We must be alert to the need for perennially restating course objectives, devising more effective teaching methods, and providing increasingly more adequate learning experiences for our students.

Looking ahead to the next several decades, it is a foregone conclusion that our commercial farmers will be faced with greatly increased responsibilities. This arises out of the simple fact that there will be fewer and fewer people actually engaged in farming, and yet they will be called upon to produce more and more food and fiber. During the past four years, as some of you know, we have held an eight-week Short Course in Science, Business and Agriculture here at The Ohio State University. This has been a cooperative effort with Vocational Agriculture in our Division of Vocational Education, State Department of Education. During the winter of 1963, we found that the average capital investment per farm on the 34 farms represented by the students in this short course, amounted to $181,000. This and many other examples could be given to illustrate the new dimensions of our responsibility insofar as education for agricultural production is concerned. If there has been a tendency in the past to believe that the least exacting educational program, either in high school or college, could be that designed for the boy who will farm, we must, in the light of available facts, revise our thinking. As we look to the day of the driverless, fully-automatic tractor, the automated feedlot and the increasingly complex systems of biological, physical, chemical and engineering sciences with which our future farmers must be undergirded if they are to meet the agricultural production challenges of the future, we must resolve anew that instruction in vocational agriculture is worthy of the best minds, the most competent instruction, the most extensive and well designed facilities, and the most adequate and up-to-date equipment to be found anywhere in our school systems.

In a speech given at a Federal Reserve Bank dinner here in Columbus last November, Dr. John C. Warner[12] made this statement: "It is significant that at the same time that we have a worrisome unemployment rate among the civilian labor force, we have acute shortages in almost every profession and skilled vocation. We have many unemployed, but there is a crying need for trained people as shown by the vast volume of advertising in all metropolitan newspapers and professional magazines, by employers seeking all manner of people, possessing an almost infinite variety of professional competencies in vocational and technical skills. I believe it is beginning to be pretty clear that economic growth alone in a free society which must compete in world markets with lower-labor-cost industrialized countries is not enough to solve our unemployment problem. We can help solve it in some cases by finding schemes for increasing the mobility of labor, but in the main, it is a problem to be solved by education and training -- by seeing to it that everyone coming into the labor force is prepared to do professional, skilled or semi-skilled work useful to our society; by seeing to it that everyone by self-education, adult education or vocational education keeps abreast of the rapid rate at which new science, new technologies and ne.. methods are being discovered and applied. Obsolete skills must be replaced by new skills." (End of quote)

Dr. Warner's conclusion that "in the main, it is a problem to be solved by education and training -- by seeing to it that everyone coming into the labor force is prepared to do professional, skilled or semi-skilled work useful to our society" -- is very much in keeping with my own philosophy concerning the need for our nation to take steps which will fill what is now a void in vocational education in this country. I am of the opinion that we have gone full cycle with respect to our attitudes concerning vocational education. At the height of World War I when the Smith-Hughes legislation came into being, the United States, as a nation, and at least a limited number of universities embraced the concept that higher education did have a responsibility for assisting in the preparation of certain members of our society for skilled or semi-skilled employment. I believe it safe to say, however, that this concept was never fully accepted by our American universities and I dare say that even in those universities offering vocational teacher training, many sectors of the universities concerned have been unhappy that they should be, in any way, identified with vocational programs. During the last 10 years, however, with world competition becoming increasingly troublesome, there has been a re-evaluation in our universities and many universities are now of the opinion that they do have a definite responsibility with respect to vocational education. It was, at least partially, out of such a feeling of responsibility that The Ohio State University espoused the concept of a National Center for Advanced Study and Research in Agricultural Education. It is from this same feeling of responsibility that we are determined

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[12]Warner, Dr. John C. "Related Unsolved Problems - U.S.A." Address presented at the Federal Reserve Bank Dinner, Columbus, Ohio, November 7, 1962. Dr. Warner is President of the Carnegie Institute of Technology, Pittsburgh, Pennsylvania.

to do everything we can to work with you folks and with all of vocational agriculture in this nation relative to meeting the challenges which you face. Increasingly, the talents of at least some of our university staff members must be utilized in helping with the organization and establishment of technical programs designed to serve the 60 per cent of our United States' college-age population who will not enroll in institutions of higher education. I would make it clear at this point that I am not suggesting that vocational training programs for semi-skilled and skilled technical workers should be set up within our universities. What I am saying is that we must do a better job of cooperating with all of the educational agencies involved in vocational education so that they can better meet these needs. Further, our universities must share the responsibility for insuring that programs of instruction in vocational education are well designed and that they provide for something beyond the "how-to-do-it" aspects of education important as they are.

In closing, I wish to assure you that I am very much aware of the fact that throughout these remarks, I have not made reference to adult education. I believe, however, that we have before us equally as challenging a responsibility for adult education as we have for the education of pre-college-age students. I regret that time does not permit more than this passing reference to the unique opportunities that we will surely have for adult education in vocational agriculture during the days ahead.

THE LEADERSHIP ROLE OF STATE STAFFS IN VOCATIONAL EDUCATION

by
Byrl Shoemaker
State Director of Vocational Education, Ohio
and
Vice President representing Trade and Industrial Education,
American Vocational Association

I was not prepared for this size and type of group. I doubt if another leadership conference of this type will have the strength and the type of personnel that are here at this one. My wife had the chance to meet some of your wives yesterday. As we talked last night she said, "You know, I think the whole leadership of agriculture is there at that conference." She was quite impressed with the people who were here. I haven't had a chance to meet all of you or to review the total group that is here, but it has been a pleasure to me to talk to some of the leadership, some of the supervisors and teacher educators throughout the country in the area of agriculture.

If you would quiz me you'd find that I know very little about the field of agriculture per se. Warren Weiler, Ralph Bender, and others are doing their best to educate me and I hope that over the next three or four years they will at least get over to me some of the concepts of agricultural education.

However, I do believe -- I'm just confident enough to believe -- that I do know something about vocational education. I'd better! If not, they should get rid of me in a hurry as State Director of Vocational Education.

I do believe that there are certain principles and concepts which are similar, if you understand these principles and apply them to each of the areas of vocational education.

The point was made, as they spoke of leadership during parts of your program, that when you think of leadership you tend to try to think of great leaders--our President, our great military leaders. I think you would even call Hitler and Mussolini leaders, in a sense -- not the right kind, but I think these gentlemen provided a type of leadership. As you think of our great leaders you become very humble when you realize what may be your place in a position of leadership and doubt that you have the personal qualities and abilities to become a leader.

What is leadership? How do we recognize it? Some years ago we thought we had a solution. We felt people's heads, checked the knots and bumps on their heads. This was one of the scientific ways of approaching what a person could be and what his leadership capabilities might be. Then we took a look at his physiognomy. Another approach was to assume (and I bet some of you today are yet unconsciously looking at it) a jutting jaw predicted a man's strength of character and ability to lead, while a receding jaw indicated weakness of character. You sometimes distrust this type of individual. This goes back to the thought that a person's physiognomy--the way he looked--would indicate somewhat his ability as a leader.

Well, they became enlightened a few years ago and decided that really the approach was the matter of the "halo" approach. They thought that if a person were trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean, and reverent he must be a leader because these traits certainly must make a leader.

Well, this is fine; except for one thing--they can't prove it. No one has been able to prove any of these two absurd ones, or the trait approach that looked like it might have some help for us. Neither the trait approach nor these other approaches has proven anything to us about the area of leadership.

They finally decided, let's forget leaders or leadership per se and let's try to look at leadership behavior and identify as a leader anyone who has a position in which he has to exert leadership. Then the Air Force became quite concerned about leadership. They were trusting an airplane worth a million or more dollars to one man and saying, "You're it. You're the leader of this organization of four or five or six people in the plane." So they became concerned and thought they had better learn something about leadership behavior. They invested quite a bit of money and time on this project. Some of the people who gave leadership to this came out of Ohio State--Halpin and others. The researchers identified sixteen concepts of leadership and tested these by checking with a man's superiors to find out which of these concepts would indicate success in leadership behavior. They also checked with his subordinates and checked the beliefs of the leader himself. After a heavy investment in money and time, they found that only two--only two--of those concepts showed any indication of measuring a person's leadership behavior. The two that they came up with were

(1) the ability to initiate structure, and (2) the ability to show consideration. They found that people who fell in the upper top quartile of ability to show consideration and ability to initiate structure were the people who were recognized as the most successful leaders, and the people who fell in the lower quartile in terms of less ability to initiate structure and less ability to show consideration didn't make it in the area of leadership. Their two factors are seemingly opposed to each other: Initiate structure on one hand; show consideration on the other. How do you do both? Well, they found that a good leader could do both.

You say, "Yes, but that's Air Force personnel." A study was made with fifty superintendents, using the same procedure, somewhat the same concepts, and these same areas of leadership behavior. They found that these two factors hold true for leadership behavior of superintendents of schools as well as for Air Force officer personnel: The ability to get something on the road, the ability to get something started, and the ability to show consideration for the people with whom you work. Now, as you would guess, the superintendents tended to be higher in the area of consideration and a little less high in the initiation of structure; but, again, those who were rated high by the board members and by the subordinates in the matter of showing consideration and initiation of structure were the ones who were identified as the leaders in this area. So, here are two factors that I would recommend to you as being important if you want to exhibit leadership behavior -- and I think everyone in this room has a responsibility for exhibiting leadership behavior.

Let's look a minute at some of the types of leadership provided. Now, as I talk about these, they are not all as separate, as clean, and as cut as I would present them to you, but I think they could be identified and perhaps you may identify yourself with one of these.

If we were to look at the types of leaders--one of the types (and you may have worked for him--I hope you aren't he) is the laissez-faire. This is the fellow who says (some of you may have a superintendent or director or board member of this type), "Now, sit steady in the boat; don't rock it; wait until tomorrow; the time is not ripe; let's wait." This is the laissez-faire type of a person who wants to let things ride and hopes that if he lets them ride they will be taken care of somehow by themselves. There are always some situations in which every leader will have to use this approach. There are some situations in which all of you will use this approach, but is this basically your approach to leadership? If so, think back to the people of this type for whom you have worked; the frustrations which grew; the ideas that died on the vine; the things that stayed as they were; and the fact that nothing happened because he decided that it was dangerous, new ideas are dangerous, new practices are dangerous.

Another type of leader: An authoritarian leader--one whose decisions are his. The organization may function perfectly; everything may be smooth, may be working, may function perfectly, but it is on the basis that he makes the decisions, he keeps things organized, he keeps them operating, he may keep them moving. Now, no one says that this type of leadership can't be successful. It can--and is--successful. Sometimes this is the safest type of leadership to provide. You only have to worry about the mistakes that you are going to make, not about the mistakes that your other staff, that your other people would make if you allowed them to make any decisions on their own. This is a relatively easy type if you are a strong-willed, stubborn Dutchman--like me -- the easy type--the easy approach to make.

We happen to believe in our country that there is another type of leadership--democratic leadership. Now this is the hardest type of leadership to provide. You all will give lip service to this type of leadership, indicate you believe in it, but doing it is something else. This is hard. This means you have to trust the people with whom you work. This means you must believe that they have something good to suggest, to propose, and the abilities to carry it out. And you must have enough intestinal fortitude to be willing to live with their mistakes sometimes as well as your own.

This is the type of leadership we teach in our administration courses at universities, but once in a while we fail to tell these people something as they go out and to work. Let me illustrate what I mean by a condition that actually happened in a city not too far from here (out of the field of vocational education, so no one can identify it). A principal came out of a university, well indoctrinated with the concept of the democratic leadership. He moved into a community and immediately began to try to bring about democratic leadership activities within this school. As principal, he gave the teachers responsibilities, he made the students responsible, and he made every effort to make this work. By the end of the year, he had chaos on his hands; he had students up in arms; he almost had an insurrection. He decided the thing to do was to put the students in the auditorium, take away all the adult

leadership, and tell them, "Now, solve these problems." The principal wasn't there the next year. He had failed to recognize something. He had failed to recognize that before he got there, there was a principal that ran the place in a very autocratic manner. Smooth, quiet, efficient--but he ran it. This man came in with his concept of democratic leadership and he failed. He failed miserably.

Because of experiences like this, we have developed a group of people that I call "democratic manipulators". They have found that they should operate democratically but they can't afford to. So we'll let the group think that they are making decisions, but we'll really make them for them ahead of time. I'll decide what I want and I'll talk around until I find a guy that really believes the way I do and then I'll make him chairman of a committee and put on the committee people he can dominate and they'll come up with a report and we'll adopt it and have a real democratic decision. Horsefeathers! That isn't democracy. How many people operate in that manner? A large number. They let people decide to do what they want them to do. They make the decisions ahead of time for them.

Committee action doesn't guarantee democratic decisions. I've found that when I am going to be in a group of people, on a committee, if I am well prepared ahead of time, know what I want, nine times out of ten the rest of the people won't be. If you can go to the meeting and throw enough of your own ideas into the pot to begin with and get them talking about <u>your</u> ideas, it's just a matter of degree in getting what you want. That isn't democracy.

In committee action such as you would have around these tables, is it democracy if it's dominated by one individual, or two individuals? True democracy means that you try to find out what each has to offer and then make decisions based upon the strength of the group--of the <u>total</u> group--not permit a committee to serve as a sounding board for an individual and his <u>prejudices</u>. How do you get to the point of true democratic leadership, particularly when you follow a person who has been an authoritarian type leader?

I would like to refer to two people prominent in leadership training for school administrators. Kimball Wiles is one of the top people, I think, in the matter of administrative training, of presentation of concepts of leadership. Kimball Wiles pushes hard at the democratic approach and the human relations approach to this democratic leadership. He proposes that you move into a group, work with them, emphasize techniques of human relations, give them a part leadership role, and put them in positions of responsibility and under the democratic process. Now this is fine except it is what the principal referred to previously believed and did. The problem was, he didn't know how to get to the point of democratic leadership.

The second person is John Bartky of California. I don't know how good an administrator he is, but some of his principles and concepts make a lot of sense to me. John Bartky says, "Well, democratic leadership is all right, but as you go with a group of people you'd better first see what they want, see what type of leadership they are willing to accept, provide this type of leadership, whether it's authoritarian or democratic, until they're willing--until they're able to accept the type of leadership that you want to provide." You'd better perceive what they want, give them that type of leadership, and then train them, prepare them, orient them to move toward democratic leadership. If you believe in this democratic type of leadership, want to do it, and move into a new situation, you may live longer if you've listened to this concept that Bartky proposes.

If we would look at the decisions to be made in an organization as a range of zero to one hundred, I don't believe that in any case would you ever ask the group to make one hundred per cent of the decisions. This is wasteful. Why should they try to decide how many reams of paper you need? You can be boring with this process of democratic leadership to the point where it becomes absurd. So, even if you move to the best democratic leadership, there will always be a certain percentage of the decisions that will be made by the leader. And even an authoritarian person is not so stupid but to allow some decisions by the people with whom he is working.

But if you begin with a group that is used to authoritarian leadership, the job is to educate them, to orient them, to work with them, until you can move this decision level up the line in terms of releasing the ability of the group.

There is only one reason for democratic leadership, and that is if you believe the people with whom you work have knowledge, have ideas which are better than your ideas alone, which they can contribute and which will improve the situation. If you don't believe this, then there is no reason to worry about democratic leadership.

Let's look at preparation of persons for leadership positions in which people can exhibit leadership behavior. It is my belief that investments in leadership positions and in leadership training are the best investments of state and federal funds that can be made. The best investment of funds that you can make is in the area of leadership and leadership training. Historically, the field of education has been unwilling to invest in either.

In education we have used a term, "academic freedom," and, gentlemen, this too often has been interpreted as "academic license to do as you very well please." Too often we have anarchy, not democracy. I would say, with a little pride, that I don't think this has happened in the field of vocational education as much as it has in some other areas--and I'm honest in this statement. But I believe, sincerely, that leadership and supervision are needed. If you ask me personally, do I want to be supervised, I'll tell you, "No, I don't." But if you ask me, should I be supervised, I would have to honestly say, "Yes, I should be." One senator asked some teachers here this last year, "Do you need supervisors?" Of course, the teachers answered, "No." They don't need supervisors. But this doesn't mean that we don't need them.

Industry has, knows, and respects the value of leadership. Industry has, as we have found through studies, a relationship of about one supervisor to every eight people. They know that they can't run an industry without leadership and without supervision. Yet we sometimes believe we can run educational programs without leadership and without supervision.

To be effective in a position of leadership a person must have three things, I believe: Time, authority, and responsibility. I think all three of these have to be present. To make a person a department head without giving him some time for it, for leadership, is to just establish a paper organization. I think a person has to have these three factors present in any leadership position.

Leadership is essential on the local level, and it is also essential on the state level.

Let's look at the training of leaders. Industry has learned that an outstanding worker does not become an outstanding leader without some training. Just because a person has been an outstanding worker doesn't mean he's going to become an outstanding supervisor. Nor does it mean that because a person has been an outstanding teacher he will be an outstanding supervisor or leader without training. We sometimes make this false assumption.

Skills of leadership are important to enable persons to relate themselves to others and to communicate with others--such skills as skills in discussion techniques, conference leadership, Phillips 66, brainstorming, abilities in discussion techniques, and skills in human relations. There are certain principles of relationships between people that can be taught, certain safeguards, certain warning lights that can be taught and learned. Skills in methods of improving jobs--and I think in the agriculture area this is important. Skills in how to improve a job. How do you do a job better? What are some of the principles that you apply to a job to see if it can be done better? These can be taught. Skills in speaking--the ability to communicate orally your ideas, your concepts, your beliefs. You can have the most wonderful thoughts in the world but to communicate these is a problem. Skills in teaching others how to teach--if you become a supervisor or a teacher educator you must have skills in teaching others how to teach. The fact that you can teach well is important but do you know how to teach others how to teach? Skills in evaluation--another area of skills that a leader needs.

Knowledge is also important, including depth of understanding of one of the fields of vocational education. I believe in this sincerely. I see a movement or an indication of some people of "let's move to generalists in the field of vocational education." Let's move toward leadership which has a little knowledge of all of them. I think this is fine--I'd better get some knowledge of all the areas of vocational education if I am going to stay director of vocational education--but I believe that a person needs to have depth of knowledge in one field. I don't think we need administrators as much as we need vocational educators. The tendency is to believe that if a man is a good administrator he can run anything. He might run it, but I don't think he releases the abilities of the group or releases the possibilities of program development as if he knows the depth of one or more of the areas of vocational education.

I am somewhat concerned as any organization, as any group, tries to become all things to all people. I listened to your discussions very carefully as you made these presentations this morning and I would suggest to you, don't try to become all things to all people. If you do, you lose your uniqueness and your place in the curriculum. You have a service to provide because of your uniqueness. The day that you lose that uniqueness is the day

that anyone else can do your job. This does not say that you do not have great contributions to make to the total education of youth. This is true and we can prove it, but you aren't in the curriculum because of these contributions to the general education of youth, but because of your contributions to the agricultural education and preparation for directly related agricultural vocations.

I do believe that all people in vocational agriculture should have an understanding of the other areas of vocational education. If you don't know some of the basic principles, rules, and regulations of distributive education, trade and industrial education, business education, you should, because you represent vocational education wherever you go. And people expect you to understand something about all those phases.

Another area of knowledge: An understanding of administrative procedures. As leaders you need to understand personnel procedures, budgeting procedures, organizational procedures. These are knowledge items that you can gain from university courses in administration, from other courses in other vocational education areas.

This last one (I think this is like carrying coals to New Castle): You need an understanding of legislative procedures. If there is one group that understands legislative procedures, it is this group right in front of me. Believe me, gentlemen, you have been a backbone in the development of vocational education legislation. We know this. You understand the procedures and you have many times kept alive vocational education by your efforts in legislation.

I want to move to some more specifics now, in terms of what I believe. Here are personal opinions in terms of leadership role of state staff. With this information on leadership behavior and leadership training in the background, let me look at some specifics: If you are going to administer at the state level you must have staff. Now that sounds silly but, gentlemen, I can look at some states and they just plain don't have enough staff to talk about. You must have an adequate number of staff personnel. You must invest in leadership on a state staff in terms of supervision, teacher education, and consultant services. These are three areas of leadership personnel that I would identify: Supervision, teacher education, and consultants. Consultants are not well understood but cover services such as adult areas of instruction. Instructional materials development might warrant a consultant to provide leadership for this. Special groups like young farmers may justify a consultant to work with them--and I heard this young farmer group being mentioned as a deep concern of yours here. The three areas of concern in terms of state staff leadership: Supervision, teacher education, consultants.

Do distribute these quickly. I believe it is important that you have a staff organization, that you know what your staff organization is. You will find, very quickly, that I do believe in this first approach to leadership. I am not sure where I am in many areas, but of one thing you can be sure, I do believe in this. We will just look at part of this. We are not going to spend too much time. On the front page is our over-all organization, the services involved in the Division of Vocational Education. These are quite familiar to you. We happen to have in our state the Veterans Training and Educational Service related to our Division, and also Guidance Services. These will vary from state to state.

If you will turn to the second chart, this is the one which would indicate the areas of interest to you. You'll see that we believe in investing in leadership in terms of number of people. I would say here, in spite of perhaps patting them on the back, I am extremely proud of the staff that we have in vocational agriculture in Ohio. It is one of the areas I don't have to worry about to begin with. We have capable people, able people, and, I believe, sufficient people to do a job. But I believe that you must have the relationship of the various groups of people. They can see themselves in terms of a whole. Here we have tried to identify a supervision arm on the left as you look at it--Mr. Purkey, Mr. Ruble, Mr. Dougan, Mr. Brum, Mr. Crabbe, Mr. Starling. On the right, you see teacher education functions. In the center are consultant functions. The relationship is indicated between these areas and groups that they are serving: A team relationship of a whole, not a family divided, but an organization of which I am extremely proud. Do you know your organization in your state? Where you stand and where you relate? This, I think, is important.

A staff must accept two basic roles: (1) A leadership role as you work in your supervisory functions; (2) (and you cannot ignore this one) a regulatory role. You have standards that you must administer. You have standards that you must see are maintained. We believe that ninety per cent of our efforts and time is spent in the leadership role. If I were to make a judgment, I would say that ninety per cent of our time is spent in the leadership role, but that ten per cent on the regulatory function is important and must be done.

You cannot ignore the fact that you and your programs and your efforts must see that the minimum standards are maintained.

I believe that the qualifications and duties of each staff member must be identified, that you must have in writing the qualifications of each man that you want on your staff and what his duties and responsibilities are. Here is a plan for professional services of one of our vocational services. They have a plan for professional services to be provided which identifies the qualifications and outlines each service to be provided in terms of guiding principles, objectives, duties and responsibilities, and operating policies and procedures. There is no question about what the function of a supervisor is or the function of a teacher educator, what the function of an instructional materials consultant would be. What they are to do and why is identified clearly. The staff members have a hand in developing this. This is best developed by the people who are doing the job, but then reviewed by a group representing the various services. There must be some administrative review as well because you cannot ignore your administrative function in terms of staff operation.

The policies and procedures for local programs must be in writing and must be available to them. It is very nice to be an "answer man" on the state level, have them call you long distance from all over the state and ask you, "What do we do now?" or "What do we do here?" but I think your leadership role would say, "You better have prepared manuals in their hands, which give the answers to the questions to which they rightfully should have the answers--manuals of operation." This is the manual for agriculture and this is the one for trade and industrial. Each service has a manual of operation which is in the hands of the local community and which says, "Here is what you can do. Here is how to go about it. Here is how to organize it. Here is what you can expect." Each service is different. We have a state plan. All of you have a state plan in your state. This is not needed by local communities. This is our agreement with Washington. On the basis of this, we develop our manuals of operation which are applied to our state and are in the hands of our local people. At times we have things in our plan with Washington that we don't even want to do in Ohio so we develop our Ohio plan of operation.

Let's look at some operating procedures which I believe enhance the leadership role of the State Department. All persons in the vocational service must view themselves as a part of that service. Now this sounds trite, but let me explain what I have seen sometimes. You must view as one service supervision, teacher education, and consultants, not as separate organizations within a state. If you wish to progress the way that you should, you must view this, in my thinking, as a team effort with one group, not two or more groups. They must meet as a unit, they must be willing and provide opportunity to meet as a unit. I am speaking of a vocational service, like agriculture, trade and industrial. The State Department and the universities must see themselves in a close team relationship.

State supervision must be in a leadership position with a total staff. I think all of this must be coordinated through your state supervisor of agriculture, state supervisor of trade and industrial. You must focus in terms of one leader. All vocational services must join together in a strong Division of Vocational Education. The director must have an interest in and a knowledge of all vocational services and depth in one--not just an administrator, but a vocational educator, and, as I say, I react very negatively to this concept that all you need is an administrator to run things--the so-called "generalist" in vocational education. I believe that we are going to continue to need services per se, we are going to need vocational agriculture, vocational trade and industrial, we are going to need vocational business--people in all those fields, not just a generalist who knows a little about all areas of vocational education, if we are going to progress. I would like for you to think about this: Do you want to eventually do away with the services and draw everything into one group of vocational education, or is there strength in having each of the services which have knowledge in areas of abilities to apply to common problems, but from their viewpoint and standpoint?

In terms of trying to work together as a division, here are some techniques used in Ohio. We have bi-monthly staff meetings of the heads of each of the services. We have an annual meeting of two or three days of all of these people as a Division of Vocational Education. We have inter-service committees and publications. Here is a publication, "Meeting Ohio's Needs," which was developed by an inter-service committee--representatives from each of the vocational services working together to come out with this publication, out of which grew a small brochure distributed by the thousands in Ohio. The point is, inter-service committees for the solution of common problems.

I believe in a strong OVA organization--Ohio Vocational Association--not a separate agriculture organization, not a separate trade and industrial organization--but an Ohio Vocational Association in which staff members take a strong part, not presidency or not

officer positions, but in terms of giving full support to this activity, some of the detailed work, such as the executive secretary. Ralph Woodin, of the agriculture staff, has served as executive secretary of this OVA for a number of years. This is the key person who has held this organization together. Each service contributes a person to work on membership. This membership chairman for each of these services is a state staff member who gives time and effort to it. The point is, if you believe in "togetherness" in vocational education, then your professional organization ought to represent this as well--all services working together.

I would have loved to have been here yesterday to have heard Dr. Mobley and Dr. Arnold but it so happened that Mr. Weiler and I and representatives from each of the services were out making reports of surveys. We had conducted two surveys--one in Sandusky County and one in Seneca County--on which representatives from each of the vocational services were there making a report. All the vocational services had cooperated in the survey; now they were all represented and making this report--another phase of working together as a staff.

I believe that reports are a leadership technique. All of you know about these. We have a bi-monthly report from each staff member to his supervisor (not to me but to his supervisor) and an annual descriptive report.

Then there is another supervisory technique in which I believe. I started out as assistant supervisor in northwestern Ohio and I found that I would visit a local program and would make suggestions for improvement, but when I went back neither one of us was quite sure what I had said, or he would say, "Well, I didn't understand it that way." So I found that one technique was to leave written reports of suggestions to which we agreed before I ever left--written reports of suggestions for program improvement which he had in his hands and which I had in my hands. When I went back for a supervisory visit I could say, "Let's see what progress we have made on these. Let's see what changes or progress we have had." Also, I have found that giving this to a superintendent helped encourage some points of improvement. A written report.

In summary, I believe that no adequate program is possible nor adequate supervision or leadership program is possible without an adequate number of good people. This is basic. I think we have been in a fortunate position in vocational education in relationship to our brothers in the rest of education. We have had more leadership in terms of persons and in terms of quality of people. One person who has made a national study (I can't tell you his name) ended up by saying that in each of the state departments of education, the vocational division was best staffed and that they have led the way to better staffing of other departments. We should have been doing a better job because we have had a better chance to do that job. I think we are at the point in our state, and I believe in some other states, that we will have less freedom to do as we darned well please in vocational education. I believe we will have to be measured by the same yardstick that they are using for the other groups and that we will have to relate ourselves more closely to the total leadership in education within the various states. I think statements like "We have always done it that way" or "No one has asked us to justify this before" won't hold up. Our leadership must be skilled in administration and supervisory techniques and must be strong vocational educators.

Gentlemen, I am extremely pleased to have this meeting of your national seminar here in Ohio. As indicated, we are strongly in support of this National Center. You gave me an idea to work for a similar center in another area of vocational education. I believe such centers are important. This is a leadership role that agriculture has played for all vocational education which I hope will bear fruit for all of us.

Thanks for the chance to be with you and to participate in this conference.

A STRATEGY FOR IMPROVING AND PROJECTING AGRICULTURAL EDUCATION

by
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I

It may be later than we think. After 60 years vocational agriculture is offered in only half of the schools in communities under 30,000, where most of the clientele we have tried to serve lives. It has been omitted from most of the new post-high-school institutions that are being established everywhere across the country. The clientele we have elected to serve is a diminishing one, now a tiny minority of the population, smaller than the Negro population and not as well organized.

For the past 11 months I have been traveling the South. Most of the people I have met have not known that I have been connected with agricultural education. I have got many candid reactions about it. They can be summarized in the story of the lady who took her Chihuahua for a walk and encountered a small but curious boy. He looked inquisitively at the dog and asked, "Is that a dog?" Assured that it was, he took another close look and walked away saying, "Lady, you haven't got much dog left, have you?"

Many people think we haven't much program left. We have been highly successful in convincing large numbers that agricultural education is only for a highly select clientele. We have demanded that people fit a preconceived program instead of fitting programs to people. We have too willingly accepted the concept that vocational agriculture is a high school subject and have left the public with the conception that the high school program is all, or nearly all, of our program. As the relative importance of vocational agriculture in our enlarged high schools diminishes, our importance is downgraded.

School people and others rarely mention agricultural education in talking about a state's educational needs. Sometimes it is assumed that we are in the schools only because we have political pressures behind us. There is resentment in the states that have not been redistricted because the farm groups who support us continue to wield undue power in state legislatures. Sitting across the table from a Georgia superintendent of schools, we engaged in a discussion of the future of vocational agriculture. I said, "I guess it will survive." His rejoinder was: "Yes, that's the best thing these ag people do--survive."

The Atlanta Constitution, probably the South's most influential newspaper, has recently carried a series of eight daily articles lambasting vocational agriculture under the general heading, "Cheating Our Children". I am reminded of the worst characterization of teachers I have ever encountered, that by Henry James, who said, "Teachers are people who are paid to tell lies to little children." The first of these articles, featured on the front page of the Sunday Constitution is entitled, "Training for Jobs That Don't Exist."

Rising enrollments in vocational agriculture are frequently deplored, both by the general educators and the agricultural educators. Some of these large enrollments are forced by the state systems of foundation aid. The number of teaching positions supported by a foundation program is related to enrollment and enrollments in high school classes in agriculture must be kept large in order to have agriculture taught at all. Large enrollments also result because many small high schools have no good alternatives to it. Everyone knows that, when a teacher of vocational agriculture in a small community is teaching 80 to 150 pupils, and when vocational agriculture is a required subject for all freshmen, and perhaps for all sophomores, and is taken by nearly all junior and senior boys, the whole purpose of the program has been aborted and large numbers of boys are spending their time inappropriately. The difficulties are amplified, and the criticisms become even more warranted in the Negro schools in many of which no more than five per cent of the enrollees have any chance of entering any agricultural occupation.

We have not come to realize fully that we live in an urban society and that we could serve many urbanites. We should have realized long ago that there are two principal types of agricultural education: Vocational and non-vocational. Vocational agriculture was and is intended to be employment-related. Non-vocational agriculture is a worthy part of the general education of all.

We have developed no adequate counterpart to industrial arts or general business education. There are 40,000 teachers of industrial arts and the program is growing. Business is taught in every high school of the United States. Both of these programs are conducted without federal aid. There has been recent insistence that high school home economics is not really a vocational subject; that it should not be federally aided; and that it could survive well enough without federal aid. Shall we be next to be considered in the same light?

In his monthly column in Nation's Schools for July, 1963, Dr. Calvin Grieder of the University of Colorado argues that "some practical arts study is good for all students" while holding that training for specific jobs or even families of occupations is impractical in the high school. Why don't we capitalize upon the interest of many schoolmen and many others in providing practical experiences and work opportunities for junior and senior high school pupils without claiming that these are vocational and worthy of federal aid? Everywhere there is concern because young people are growing up without work experience and the responsibilities that go with it, unaware of the world of work, and unable to choose an occupation wisely. Agriculture could provide some of the best opportunities for work experience, valuable regardless of the occupation subsequently followed, as thousands of our boys who have been through vocational agriculture and have utilized well the opportunities for supervised experience tell us.

The State Board of Education in North Carolina last fall decided to use as it saw fit $1 million of state money for vocational education not required to match federal funds. Arkansas has funds which do not have to be used under federal regulations. South Carolina is about to release $1.2 million of funds for vocational agriculture from the restrictions that must be observed in the federally aided program. All sorts of opportunities to serve groups not now served are opened by these actions, which I have advocated for at least 30 years.

Having differentiated between vocational and non-vocational agriculture and indicated some of the possibilities of non-vocational agriculture, let us turn to vocational education in agriculture.

Vocational education is being rediscovered in the United States. Much that is going on now reminds me of the discussions prior to the passage of the Smith-Hughes Act. State Superintendent Wilkerson of Virginia, asked to indicate the important educational issues in his state, named vocational education first, without hesitation. Southern legislatures have, almost uniformly, been putting it first among their educational concerns.

There are good reasons. Unemployment, including the unemployment of dropouts and recent graduates of the public schools, has us well worried. Relief loads are becoming unbearable and increases in relief costs appear interminable. At the same time, we are short of skilled and technical labor, even of labor that will do conscientiously and well the simple jobs of our society. School people are stung by the characterization as "unemployable" of the products of their increasingly expensive schools. This is a good time to be on the vocational education bandwagon, but only if we mean to provide real vocational education, not pseudo-vocational education. It must be education that prepares effectively for entrance into productive work, or progress on the job, or retraining for productive work if it is to win plaudits. We have done a lot of that kind of education and we could do much more.

We could get the public to recognize the critical importance of agriculture and the unique advantage this country has because its agriculture has been made strong by research and education. We could get the public to understand that each agricultural worker needs far more extended and intensive education in agriculture than was once needed or is now provided and that he needs it throughout his active career. We could make significant contributions to the preparation of workers in many businesses, industries, services, and professions to whom we have contributed little.

We could have extensive programs in both vocational and non-vocational agriculture if we would ask, "What could agricultural education do for the many kinds of children, youth, and adults who comprise our population?" and then do something effective with the answers we get.

II

Who are the clientele of agricultural education and what are their needs?

They include many groups: male and female, white and nonwhite, country and city, persons of all ages, the normal and the exceptional, the college-bound and the others, the capable and the less capable, those enrolled in elementary schools, junior and senior high schools, community colleges and area schools, and other adults.

We are making some progress in locating special groups and learning to serve them.

In Florida, the vocational agriculture service has been providing a program in ornamental horticulture for some of the younger inmates of a state prison. Eleven have been released from prison after taking the course. All had jobs awaiting them when they were released. All have held these jobs.

Teachers of agriculture in Dr. Krebs' class at the University of Illinois in the summer of 1962 developed seven different courses in agriculture to serve seven widely differing types of students.

A North Carolina teacher has developed an excellent course in agricultural science for college-bound high school seniors with two years of vocational agriculture as a prerequisite. Another North Carolina teacher last year experienced his greatest satisfaction in teaching agriculture to eighth grade students, previously untaught.

These are only samples. Many other examples will occur to you.

We need to concentrate on the values boys in vocational agriculture have gained from their experience in it and ask: To what extent can these same values be realized with other students? Why should they be withheld from others than farm boys? I am sure that some of the following answers would be forthcoming.

They have been given guidance regarding opportunities in agriculture and how to take advantage of them.

They have had invaluable work experience involving responsibility, management, and the use of business procedures.

They have often acquired, or had confirmed, basic personality and character traits which are the first demands of employers and the first requisites for acceptance by others.

They have used a lot of their leisure well in agricultural pursuits.

They have acquired a more practical understanding of science, especially biology, than they could get in their science courses.

They have learned much about living and working with others.

Their mental and physical health has been improved through wholesome, outdoor activities.

They may have been kept from delinquency.

They have earned money which could be used, and often was used, to give them their start in life.

Some of these values may seem intangible in comparison with the dollars in terms of which we have so commonly measured our results, but those who have not learned to reckon in terms of the intangibles do not belong in educational work. Society is deeply disturbed about many of its youth and adults, and it is because they lack some of these intangibles that it has become disturbed. We could do much to conserve and redeem those about whom society is concerned.

III

What opportunities do we have that we have not had? How could we use them?

We have a steadily increasing number of multiple teacher departments resulting from school district reorganization. These make possible expanded programs of young and adult

farmer education, specialization of teachers, and more homogeneous grouping of our students. Teachers in these departments are better able to leave their communities for additional training in subject matter and in professional fields because there is a nucleus of them that can be left to carry on at home.

We have access to an increasing number of junior high schools, now developing in rural areas although once they were confined to the cities. We also have access to an increasing number of elementary schools, which are now parts of unified school systems, not separate from the high schools.

Adult education is being recognized increasingly as a legitimate part of public education, so that we do not so often have to go our way alone in school systems in which no one else has any interest in the education of adults. There is also slow but increasing recognition that the education for adults that the schools have provided has been entirely too superficial to meet their needs. Programs having breadth and depth are, here and there, developing into which a program such as the Minnesota program of farm management education can appropriately be fitted.

There is everywhere emphasis upon counseling and the need for teachers of agriculture to share in counseling, which is regarded at long last as important.

Our whole climate now favors research and development. An agency with an action program unsupported by research is increasingly suspect. Funds and personnel are becoming available for educational research and development in which we could share. The Ford Foundation, until recently firmly committed against spending money on projects in vocational education, has set aside $1 million for these projects. There is likelihood that national funds for research in vocational education will become available. We now have the resources of the National Center for Advanced Study and Research in Agricultural Education. Our own people are becoming convinced of the need for research and development. Everywhere I have been the supervisors of agricultural education have been talking about pilot projects.

IV

Now that we are "hell-bent" to establish pilot projects, perhaps we should ask how these projects should be conducted. Most of those I have heard described are not "pilot projects" in any rigorous sense and will not yield the outcomes to be expected from real pilot or developmental projects. Generally, they follow a pattern with which we have long been familiar. A teacher or supervisor or teacher-trainer becomes enthusiastic about some new idea. He tries it, gives it everything he has, and reports to his colleagues that it has been a big success. There have been no controls. No one has watched it critically. No adequate measurements or evaluations have been applied. His co-workers, used to excessive claims on the part of their colleagues, discount the reported success and ignore the possibilities for their own situations. We have had in Illinois one teacher who has developed magnificent programs for adults and two-teacher departments in two situations where most of us would say one-teacher departments would have difficulty in surviving. Yet the carry-over from his practices to other schools has been negligible.

I should like to suggest some of the procedures and precautions that I think should be observed if this present rash of interest in pilot projects is not to prove completely disappointing.

The idea or practice tested should be big enough and important enough to catch the imaginations of persons outside our field as well as those in it.

A state committee is needed for each pilot project to be undertaken. The committee should include teachers, supervisors, teacher-trainers, and others from outside our field, such as research specialists, curriculum directors, administrators, teachers of non-agricultural subjects, counselors, psychologists, sociologists, and economists. The state committee should have an executive officer. The committee should only develop policies and approve general plans. The executive officer should be held responsible for getting the job done and should be allowed much freedom of action.

A comprehensive project plan should be developed indicating the duration of the project, its purposes, arrangements for evaluation of outcomes, provision for control situations, the organization to be set up and the procedures to be followed, the personnel, funds, and facilities available, the manner in which cooperating schools are to be chosen, the records to be kept and the reports to be made, and the manner in which findings and new practices developed are to be disseminated.

My experience indicates that three years is a good length of time to designate in setting up a new project. It can be discontinued or revised and continued after three years.

We must be careful that the purposes sought in a pilot project are valid educational purposes and that outcomes are measured primarily in terms of the growth and development of the students who are to become involved, not primarily in terms of increased enrollments or gains to the teachers or the state program.

The cooperating schools should be a selected sample of the schools of the state. They should be a random sample in that they are distributed geographically and include schools of various sizes and kinds. But they should be schools in which the idea or practice to be tested will have a fair chance because the boards of education, administrators, teachers, and others welcome the opportunity to try it and will provide the conditions necessary if it is to have a chance to succeed. The number of schools chosen must be within the number the project's executive officer can supervise well, but there must be enough schools so that the implications for schools generally will be fairly clear. I would suggest a minimum of six schools.

The coordinator of the project should be given time and funds for travel, clerical services, supplies, and other purposes.

The project should be understood and approved by each local board of education and board members should be kept advised of its progress.

There should be a local consulting committee in each school, made up of lay and professional people, that would meet regularly and keep in close touch with the project.

There should be at least an annual meeting of the state committee for the project with the administrators, teachers of agriculture, and consulting committees of each cooperating school.

Careful records, predetermined, should be kept that can be used in evaluating the project and also in reporting to others exactly what was done.

There must, of course, be continuous evaluation and revision of the project by those who are conducting it. At least annually persons outside the project should be called to each school to help in evaluating what is going on there. Since these evaluations could be a principal means of spreading knowledge about the project, use should be made of administrators, teachers of agriculture, board members and others from the part of a state in which the project is being conducted.

In addition, there may well be annual open houses in the cooperating schools to which anyone interested in the project may be invited including the local people, persons from the area but outside the school district, state personnel, and persons from other states.

It should be expected that publications will grow out of each project. Some of these may be annual reports or special reports on particular phases. Certainly there should be a final report, issues in two forms: one complete and the other brief and popular in approach.

It takes money to do this sort of thing well. There should be an adequate budget covering the salary and travel of the coordinator, the travel of members of the state committee and the outside evaluators, the costs of reports and other publications, clerical services and supplies. There could hardly be a better investment than in a well conducted pilot project. We have spent, and are spending, millions in financing idea and practices that have never been tested as those included in these projects would be tested. The number of new ideas and practices which we should be testing is legion; our only problem is to select among them. Conducting pilot projects is not a minor operation; it could well be the principal use of our federal and state funds, although I have no illusions that it will be.

V

But pilot projects are not enough. They are good because they may involve all kinds of practitioners of agricultural education and the people with whom they work most directly; because they may yield returns in a short time; and because they keep us from getting in ruts and continuing outworn practices. We need also independent, creative research workers with ideas, funds, assistants, and time. It is surprising what one can do with $250,000 for a research project, as I have discovered this year.

We cannot isolate ourselves in conducting our research. We need to know what others are doing and have done and to team with workers from other fields in conducting research.

We must avoid preoccupation with statistical methods, using them when appropriate in dealing with our major problems, not letting statistics determine the nature of the research we undertake or covering up crude and inexact data with elaborate statistical computations.

Contrary to some of my former colleagues in the Central Region, we can and we must research "what ought to be done". We must not reject the study of values; to do so is to bypass the most significant problems we face.

The principal function of a university department of agricultural education should be research and development. It is also its most unique function. I have seen case after case this year where the universities are failing to perform this function and no one else is performing it either.

Research and development must be hitched together, as they are in business, industry, and government. When we do, we involve teachers and supervisors, as well as teacher-trainers, for development is done in the field, where the teachers and supervisors are.

We need some massive, highly significant, basic studies into each of which $100,000 or more might be poured. But we need also the small studies required to guide day-by-day and year-by-year decisions.

We should draw upon the private funds others are using in great quantities for research and development, but we should also get the idea established that a percentage of the funds used in any program of public education should be allocated to research and development.

We should use the National Center for all it is worth, particularly for post-doctoral students, who are the ones most likely to provide leadership in research and development if we can find time for them to develop their ideas and can provide an atmosphere in which they can be brought together to react to and be stimulated by each other's ideas.

VI

We should now be ready to admit that we do not know how to do most of the things we should be doing. We need great humility in the face of our problems, but a humility that is not abject or despairing.

We need to know how to retrain adult farmers and other agricultural workers for changing conditions.

We need to learn how to prepare for the technical occupations related to agriculture.

We need to know how to find out how to meet the needs of junior and senior high school students we have never included in our clientele.

We need to develop means of working with teachers in the elementary schools in introducing agriculture appropriately into their subjects and activities.

We need to learn how to counsel about agricultural opportunities and how to work with school counselors.

We must soon learn to work with the largely urban public and its official representatives in school boards and legislative bodies to clarify their images of agriculture and agricultural education.

We must learn to work with our colleagues in vocational-technical education as we have never worked with them before. Last fall, I visited the Industrial Education Center at Asheville, North Carolina, where a teacher of vocational agriculture had become the coordinator of agricultural technology. All he wanted to talk about was the work being done by his colleagues in industrial education. They had opened a new world to him and he thought it was wonderful. Maybe you would, too.

VII

How can we get the decisions about agricultural education made that are needed? Obviously, we can't make them by ourselves. We must have authorization to do what we could do and funds and personnel to do it.

The public is ultimately responsible for decisions about public education. There are many and devious ways in which the decisions are made on behalf of the public. Generally, over the country, the means of making these decisions are bad. I have been establishing contacts with the few people who are studying the decision-making process from Florida to Oregon. There are significant studies under way and there is hope that decision-making machinery and processes are going to be improved.

The fundamental weakness is the public's unwillingness to face, or to face in time, the decisions that ought to be made. We postpone and postpone until something must be done. Nothing better illustrates this than our procrastination in dealing with race relations.

Generally, in the South and to a great extent over the nation, control of education has been delegated to a few unrepresentative people. Themselves representatives of a minority, they too frequently ignore other minorities.

We have far too many boards of education that do not know what boards are for and too many administrators and teachers who do not want boards to perform their proper functions but to leave these functions to them.

In too many cases teachers as well as most citizens are excluded from participation in the development of school policy.

What can we do to get better decisions about agricultural education?

First of all, we can clarify in our own minds what we want to do. After more than 10 years of discussion we seem to be reaching consensus about many things that we think should be done.

We should clean our own house and set a desirable example for others. We don't have to drift with the tide. We could get our local and state advisory groups set up properly, relating them to the governing boards and using them primarily to help boards develop policies for agricultural education. There is vast enthusiasm in the South about advisory committees and they are used almost universally. I haven't found one that is properly conceived or organized from my point of view. They are typically named by the personnel in vocational education; they have no contacts with boards; they frequently assume functions that belong to boards.

We should suppress our desires to control the program of agricultural education through the administration of it.

We should inform the public, and particularly its representatives in legislatures and boards of education, regarding the status of agricultural education and proposals for its improvement.

We should work with others in vocational and general education to get sound policies which apply to all with a minimum of special policy which applies to ourselves.

We should invite regular and systematic evaluation of our work. A Georgia example will illustrate. The state has long had two state vocational schools. About ten years ago there was serious discussion of abandoning them. The State Board of Education set up an evaluating group with the expectation that it would recommend discontinuance of the schools. The group included one school administrator from each congressional district. Instead of recommending discontinuance, the group recommended revitalizing them and giving them more money. The State Board and the legislature accepted the recommendations and a new day began for these schools. Evaluations have been conducted annually since and a similar arrangement for evaluations is to be provided for the 27 area vocational schools the state is now establishing. Two and a half days are spent at each school by the evaluating groups and reports are made to the State Board of Education, which have usually been accepted as bases for action.

We should free large quantities of state funds to be used in developing non-vocational agriculture as one of the practical arts, in educating for non-farm agricultural occupations, and in other programs not reimbursable from federal funds.

We should give thought to the organization of our state staffs. We gave much time to this in North Carolina last fall and I will indicate some of the things done and thought

about. The first step was to develop the joint staff of supervisors and teacher-trainers as a cohesive, working body. I had shared in the initiation of a joint staff in Illinois and had gone through 24 years of monthly joint staff meetings. These I held to be indispensable and I attended them religiously. But we never accomplished in Illinois what North Carolina can accomplish with its organization. During the fall of 1962 we had three joint staff meetings, each for three to five days. I am of the opinion that, particularly in getting a joint staff under way and probably for a long time thereafter, meetings longer than one day are necessary. We didn't know how much we had to do or in how many ways we needed to be working together until we had these protracted sessions.

We also undertook to distinguish between the administrative and the consultative functions of the state supervisors. Most of the staff preferred their consultative duties but recognized that, particularly in a state as centrally controlled as North Carolina, boards, administrators, and teachers regarded them primarily as inspectors and supervisors. We do not know whether a separation of these functions will work and we know that they cannot be separated completely, but when I left the Department in December it was proposed to try an arrangement whereby a very few would handle administrative and regulatory functions and most of the staff would serve as counselors. If such an arrangement can be achieved, these consultants should play a vital role in getting boards, administrators, and teachers to make for themselves the decisions that should be made locally and should not be dictated by state policy.

VIII

In spite of all I have said, we have never had an opportunity as good as the one we have now.

Vocational education is on the public mind. Reaction has set in against purely academic education and concern with only the college-bound.

We have more funds and facilities for public education than ever before. In the last ten years expenditures for the public schools have approximately doubled. The Research Division of the National Education Association estimates that to provide good schools in 1970 we shall have to more than double our current expenditures. We could share in these increasing funds if we can demonstrate that we belong in public education and are making an indispensable contribution to it. If we do not hang with the others engaged in public education, we are likely to hang separately. It is hardly appropriate to belittle the work of our colleagues in public education whose work has sufficiently won public confidence to gain these enormous increases in expenditures.

We are developing, all over the country, institutions for education beyond the high school through which we could accomplish many of our unattained objectives.

Agriculture was never more important to the nation than it is now with its mounting population. It is one of our greatest national assets.

We are backed by a huge research organization, which spends about $250 million a year. We must recognize our dependence upon it and use it to the full.

Millions of Americans have profited from our work and believe in us. We have developed a strong personnel, more than 10,000 strong. There is a vast and growing clientele for our services.

If we do not take advantage of this situation, we are stupid and deserve what we shall get.

The situation we face is not a simple one. Unfortunately, we like simple situations. Much of our trouble is caused by over-simplification. We have reduced a potentially broad program to a splinter we can handle conveniently. We must examine every facet lest we overlook the critically important one, like the hired man left to look after the farm. The cows got out and he couldn't understand why; he had closed every gate but one.

We shall have to learn to do things we have never done or have never done well.

We must prepare teachers, teacher-trainers, and supervisors for the situation ahead, largely unknown, not for the past. We have often been like France--well prepared for war, the last war, that is. Recently I reviewed a questionnaire proposed for use by a doctoral student to inquire about student teaching. It might have been used 30 years ago, but it would yield little that would help to guide us in the next 30 years.

I think we are finally on the move. We have become acutely aware of our problems. This is the beginning of their solution. The American public is patient with those who acknowledge their difficulties and are trying intelligently to resolve them. We shall win friends and influence people by this approach, but not by defense of the status quo.

STATE STAFF RESPONSIBILITIES FOR THE PROMOTION OF VOCATIONAL EDUCATION

by
John A. Beaumont
Director, Distributive Education Branch
U. S. Office of Education

Introduction

It is indeed a privilege to participate in this, the first national seminar on agricultural education to be held at the National Center for Advanced Study and Research in Agricultural Education. The leadership of the vocational agriculture educators in establishing this Center is to be commended. It is to be hoped that you will share with other fields of vocational education your experiences in the development of this national center. Certainly there are implications in this national center for vocational education if the projections of the Panel of Consultants for Vocational Education are to become a reality.

Meaning of Promotion

The Director of this Seminar has assigned me the topic, "State Staff Responsibilities for the Promotion of Vocational Education." The word promotion in vocational education has historical significance with a wide range of implied meanings. The full title of the Smith-Hughes Act is built around this word promotion. You all recall the statement, "An act to provide for the promotion of vocational education; to provide for cooperation with the States in the promotion of such education...."

The actions of the Office of Education in relation to vocational education and actions of the States have, in large measure, reflected the interpretation of the word promotion. These actions represent a threefold meaning of the word promotion--initiation, acceptance, and development.

By initiation is meant the conceiving of the program and its presentation to the groups and individuals in our society who are concerned with vocational education. By acceptance is meant the development of a willingness on the part of these same people to put into effect and to participate in the program of vocational education. Development refers to all of the activities of program operation and the constant reevaluation of program operation in order that the vocational education program may more effectively serve the nation. So I would like to submit to you that the word "promotion" in vocational education has this threefold meaning of initiation, acceptance, and development.

Fundamental Activities of Effective Promotion

I would like to introduce a series of activities which comprise an effective program of promotion. In the discussion period which I understand is to follow, I hope that we can make more direct application of these activities to vocational agriculture.

1. Review and Evaluation. The first step in any program of promotion comprises a review and evaluation of all of those activities which are pertinent to a particular program. In undertaking a review and evaluation all reference to any proposed program should be strictly avoided. The structure of the review and evaluation should be based primarily on the question, "What is needed by the people the program is intended to serve, and what will these individuals accept in the nature of a program?" A summarization of this review and evaluation becomes the position on which all further action is based.

2. Creating the Program. In this step the decision is made as to the nature of the particular program. Herein lies the real substance which reflects the ability of those creating the program to develop from the review and evaluation a program that meets the needs of the people involved. At this step, there is a great need for creativity, flexibility, and courage. Creativity to make the old, new; flexibility to recognize the need for change; and courage to stand for what is finally created.

3. Packaging the Program. It must be recognized that many excellent programs are rejected because they are not presented in an acceptable form. Packaging the program is not intended to reflect deception, rather it is intended to reflect the answers that are found to the question posed in Review and Evaluation, "What will people accept?" It is at the point of framing the program in an acceptable fashion that there is given due recognition to the many and varied backgrounds and beliefs of both those who will implement the program and those who will be involved as students and learners.

4. Communicating About the Program. The most essential element in promotion is effective communications. Communications must be planned, organized, and directed. The focus of this planning, organizing, and directing is the audience to be reached.

Planning implies the kind of communications that are to be used. Organizing reflects the ways in which these proposed communications will be presented to various audiences. Directing is the determination of who will be involved in presentations of these communications.

5. Initiating the Program. The program becomes a reality when it is functionally operative. In order to become functionally operative, the program must be implemented in such a manner that it is acceptable to the situation in which it will function. It is particularly in the sense of adapting the program to varying situations that counsel, guidance, and effort are needed to insure the functioning of the basic proposal in relation to the varying influences in which the program is initially developed.

6. Cultivating the Program. Unforeseeable problems develop in every program. These problems must be met with acceptable changes which enable the program to achieve its expected growth and development. There must be an awareness of these problems and a willingness to make essential adaptations and changes.

7. Review, Evaluation, and Redirection. The final activities consist of review, evaluation, and redirection. Review must be constant and the basis of continuous evaluation. Both review and evaluation lose their meaning unless there is a resultant redirection which reflects a self-renewing spirit of creativity.

Briefly I have attempted to present to you a list of seven activities--review and evaluation, creating the program, packaging the program, communicating about the program, initiating the program, cultivating the program, and review, evaluation, and redirection--which activities can form the basis of State staff responsibilities for the promotion of vocational education. Certainly these activities will vary in relation to conditions within a State, to the personnel who are charged with the responsibilities of promotion, and in relation to the individuals with whom promotional activities will be undertaken. Fundamentally, however, these activities can form the basis on which the State staff undertakes its responsibilities for the promotion of vocational education. In summary, I would like to briefly touch on two points which I believe are fundamental in the promotion of the recommendations of the Panel of Consultants for Vocational Education. These two points are:

1. Creativity

2. Spirit of cooperation

In an article entitled, "You Can Tell a Creative Company by the People It Keeps," John W. Gardner, President, Carnegie Foundation, says, "In young organizations there is great emphasis on the goal to be achieved and little concern for how it is achieved. The whole concern is to get the job done. But goals are achieved by some means, and sooner or later, even the most impulsive man of action will discover that some means are better than others. This interest in how to do it is the root impulse in all great craftsmanship, all excellent performance; without it we would never know the peaks of human achievement. But little by little, the preoccupation with method gains a subtle dominance over the whole process of goal-seeking. Little by little, how it is done becomes more important than whether it is done. The man who wins acclaim is not the one who is highly motivated or has a new idea but the one who has an ingrained knowledge of the rules and accepted practices. Whether he accomplishes anything is less important than whether he conducts himself in an 'appropriate' manner. Thus, means triumph over ends, and men become the prisoners of their procedures."

The Panel of Consultants for Vocational Education has recaptured for us the goals of vocational education. The question remains as to whether we will have the courage to critically review our operations in light of these well-defined goals set forth by the Panel. In brief, will we be creative or will we remain the prisoners of our procedures?

Creativity will demand a spirit of cooperation. The comfortable framework established for vocational education in the early part of the 20th century does not reflect the occupational patterns of the latter half of this century. The framers of our original fields of vocational education could no more have conceived the mixing of occupations that has taken

place than could have the merchant of that time conceived of the supermarket or the modern drugstore.

It is most fortunate, however, that in the framework of the various fields of vocational education exists, for the most part, technical substance and know-how which can be found in practically all of the occupational mix with which we are faced. In a spirit of cooperation the various fields of vocational education can effectively use the substance of each field for the best interest of the nation.

In closing, I would like to admonish you to promote vocational education in the future with creativity and a spirit of cooperation.

INNOVATIONS IN ADMINISTERING AND FINANCING AGRICULTURAL EDUCATION

by
A. G. Bullard
State Supervisor, Agricultural Education
North Carolina

Introduction

The tempo of the present era is change. We have always had changes, but this era in which you and I are living is unique because of the pace of these changes. It has been said, and appropriately so, that "we must run just to stand still."

During the decade of the 50's we experienced tremendous changes in agriculture and in education. In agriculture, it has been mechanization and automation, new pesticides and herbicides, better fertilizers, new crop varieties, improved livestock, better feeds, and improved management. Yes, agricultural science and technology has revolutionized agriculture in one decade. Moreover, these changes have had a tremendous impact upon vocational agriculture education. We have changed some, but have we changed fast enough?

In education, it has been reorganization of school districts (consolidation of small high schools), reorganization and expansion of high school course offerings, increase in multiple teacher vo-ag departments, and increase in expenditures for public education. The space age has stimulated a re-emphasis of science, mathematics and foreign languages in the high school curriculum. Moreover, the public has directed the spotlight upon education, including vocational education in agriculture. Perhaps vocational education will be the area of education emphasized in the middle and late 60's.

These changes should challenge each of us to re-examine our state programs of vocational agriculture. While I do not believe in change just for change's sake, I do believe in change when it will result in better quality education for our youth and adults. If we take the time and effort to analyze the changes in occupations during the past decade and forecasts for the next ten years, we find many implications for improving our programs of supervision, for reorganizing our state staffs and modifying some of our reimbursement policies.

Our times are reflected in the theme of this Seminar, "Keeping up with change is the key to survival; creating change is the key to leadership." This is a most intriguing theme to me. The topic assigned to me by our program committee, "Innovations in Administering and Financing Agricultural Education," has challenged me to do more study and more thinking than I would have done without a special assignment. During the hour I hope to share with you some concepts and ideas which appear appropriate for our consideration, reaction, and discussion.

Administering Agricultural Education Programs

Most of my presentation concerning the administration of agricultural education programs is about patterns for organizing state supervisory staffs. However, a brief review of the major factors which have influenced staff organization and the administration of state programs might be of help in looking at some new patterns later in our discussion.

Patterns of staff organizations vary somewhat among the states. Yet, the concept of area supervisors is the dominant characteristic of most patterns with which I am familiar. Some of the main reasons for each state staff being organized as it is now are these:

-- The influence of the pattern of organization at the national level.

The theory of "counterpart" units or positions seems to have guided the organization of state staffs.

-- The state's philosophy of public administration.

Because of different philosophies, we do have variations and innovations in patterns at the state level.

-- The extent national and state policies allow state staffs to influence local policies and programs.

How extensive or intensive are the services to be provided by the state staff? (In-service education, curriculum development, consultant services, supervision, and the like.)

-- The extent some parts of the program are emphasized.

Adult education, Future Farmers of America, curriculum development, and so on.

-- The financial support of an adequate program of administration and supervision.

Some state legislatures are more generous than others.

-- The impact of special programs.

During the World War II years state staffs were modified to meet special needs. Following the war we made special provisions for the Institutional On-farm Training Program for Veterans.

Graves[1] in his book, "Public Administration in a Democratic Society," lists the following principles as guides in organization:

1. "There should be a single responsible executive head. If commissions or boards are used at all, they should be limited to purely advisory functions. This is the principle of unity of command.

2. "The number of operating units under the executive should not exceed reasonable limits, from the point of view of span of control.

3. "The principle of homogeneity requires that in the assignment of duties to units and to individual employees, an effort be made to group similar duties together and to avoid the assignment of dissimilar or unrelated duties to the same employee or groups of employees.

4. "The staff facilities provided for the executive should be adequate to permit proper coordination, integration, supervision, and control.

5. "Adequate authority should be delegated from the top to the successive levels of supervision to enable each to perform in a satisfactory manner the tasks assigned to it."

An examination of the organization patterns at the national and state levels indicates that these principles, generally, are applied. They are sound if applied intelligently.

With this brief background of principles, let us look at some patterns of organization --past, present, and future.

The Traditional Pattern (See Figure 1) - In this pattern each of the six staff members is assigned a geographical area in which he is responsible for the promotion, coordination, and improvement of all phases of vocational agriculture. He is the key liaison agent between the local school and the state office, an important link in a two-way channel of communication.

This pattern has both advantages and disadvantages:

Advantages	Disadvantages
(1) Division of responsibilities is simple.	(1) Individual must spread himself widely.
(2) Coordination of work is simple.	(2) Individual must be versatile.
(3) Definite lines of communication are established.	(3) Individual may have difficulty keeping up-to-date.

[1]Graves, W. Brooke, Public Administration in a Democratic Society, D. C. Heath and Co., Boston, 1950, page 492.

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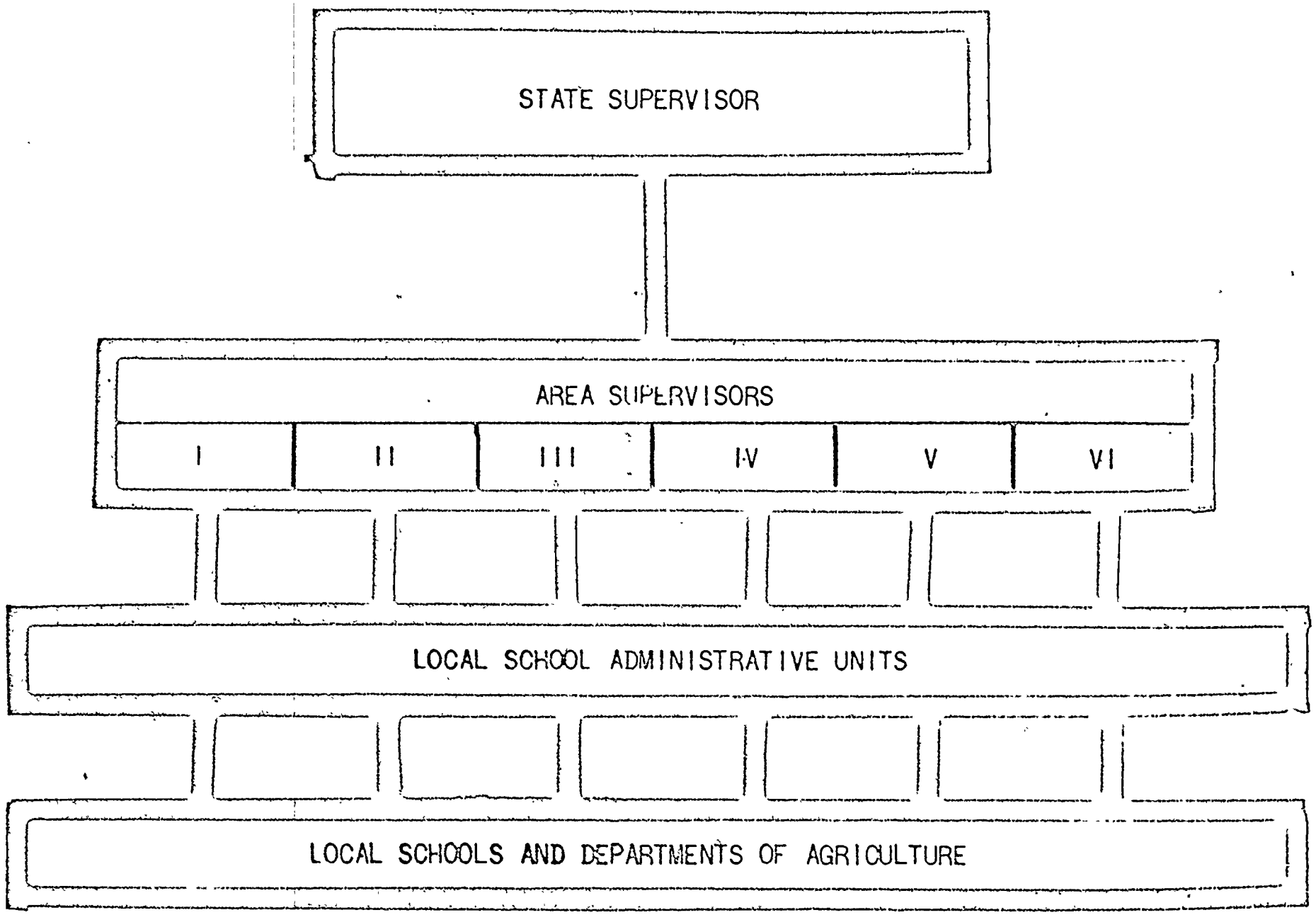

Figure 1. The Traditional Pattern

(4) Favorable opportunity exists for developing good rapport with administrators and teachers.

(5) Pattern has been tried and tested.

(6) Close acquaintance with agriculture of the area is easy.

(4) Contacts with persons outside of assigned area are quite limited.

Some of the disadvantages of the Traditional Pattern might be minimized by the organization of a "State Planning or Direction Finding Committee", and by keeping the area supervisors in touch with one another and with the outside world.

The Specialist Pattern (See Figure 2) - In this pattern each of the six staff members is a special consultant, providing a special service anywhere in the state. Some examples are: Executive secretary of Future Farmers of America; young and adult farmer consultant; farm mechanics education consultant; curriculum material consultant; and research-records consultant.

This pattern might be of interest to states where local superintendents and principals accept responsibility for local supervision, where FFA activities are local, and where responsibility for in-service training has been assigned to teacher educators, thereby reducing to a minimum the need for coordination on a larger, area basis.

This pattern has some advantages and some disadvantages.

Advantages

(1) Staff can specialize.

(2) Selection of staff of specialists is easier than selection of staff members with diversified ability.

(3) Keeping up to date in a specialty is easier for staff members.

Disadvantages

(1) Difficult to maintain proper balance among phases of the program.

(2) Less opportunity to develop good rapport and maintain effective communication.

(3) Having "too many people to deal with" may confuse administrators and teachers.

(4) Danger of state supervisor becoming a dispatcher of personnel rather than agricultural education leader.

(5) Total program is more difficult to coordinate.

The Specialist - Supervisor Pattern (See Figure 3) - This pattern uses a combination of area supervisors and special consultants. A staff of ten might be organized with six area supervisors and a supporting staff of four special consultants. This pattern is worthy of consideration where a need for coordination exists on an area basis with minimum need for local supervision. It also provides special resource persons within the vo-ag staff to help area supervisors when and where the need exists. This pattern may be considered a "hybrid" of the two preceding patterns.

This combination pattern has these advantages and disadvantages.

Advantages

(1) Advantages of the area supervisor pattern are retained, especially those concerned with coordination, communication, and rapport.

(2) A supporting staff of specialists gives area supervisor more means of accomplishment.

Disadvantages

(1) Limited opportunity for area supervisors to specialize.

(2) Division of responsibility might result in "passing the buck" to the specialist.

(3) Coordination of staff work is fairly simple.

(4) Opportunity is provided for more effective in-service training.

(3) Lack of acquaintance of specialist with the local areas.

The Functions of a State Staff

The following list of functions of a state staff are based upon: (1) those stated or implied in the State Plan, and (2) those identified by state supervisors.[2] These functions are classified according to "administrative" functions and "field service" functions.

Administrative Functions

1. To prepare budget proposals for agricultural education.

2. To evaluate, process, and approve annual applications for state aid.

3. To process, audit, and approve quarterly requisitions for reimbursement to local administrative units.

4. To maintain a system of records and reports:

   a. State staff
      - weekly itineraries
      - monthly reports
      - travel expenses
      - absence records
      - other records

   b. School reports
      - preliminary and final reports of supervised practice of students - high school, adults
      - local plans for agricultural education

5. To prepare appropriate reports for the State Director of Vocational Education, the State Board of Education, and the U. S. Office of Education.

6. To maintain a liaison through administrative channels with other sections and auxiliary units of the Division of Vocational Education, The Department of Public Instruction, and the Controllers office.

7. To maintain a system of records and accounts pertaining to youth organization funds.

8. To maintain a liaison with the National Association of Future Farmers of America concerning such matters as:
   - Dues
   - American Farmer Degrees
   - Records and reports

Field Service Functions

1. To provide consultant services to local school officials, teachers, and lay people, such as:
   - Studying agricultural education needs.
   - Determining clientele to be served.
   - Determining appropriate course offerings.
   - Scheduling classes and other staff assignments.
   - Determining staff, building facilities, teaching equipment, and other teaching aids needed to implement programs.
   - Providing leadership for periodic professional conferences of groups of teachers.
   - Organizing advisory committees.

2. To provide a channel of communication from local schools to state office and from state office to local schools.

3. To coordinate local program evaluations and reviews.

4. To provide consultant services to local school officials and teachers concerning youth organizations (FFA and NFA), such as:
   - Organizing a local chapter.
   - Leadership training.
   - Integrating activities with the instructional program.
   - Assigning staff responsibility.
   - Interpreting awards program.
   - Planning and conducting state conventions of youth organizations.
   - National FFA Convention.

5. To maintain a liaison with Agricultural Technology Education personnel at the state and area level.

6. To cooperate with agricultural organizations and agencies in promoting the social and economic development of the state. (Some examples):
   - Rural Area Development
   - Community Development
   - State Fair

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[2]National Workshop of Head State Supervisors, U. S. Office of Education, 1958.

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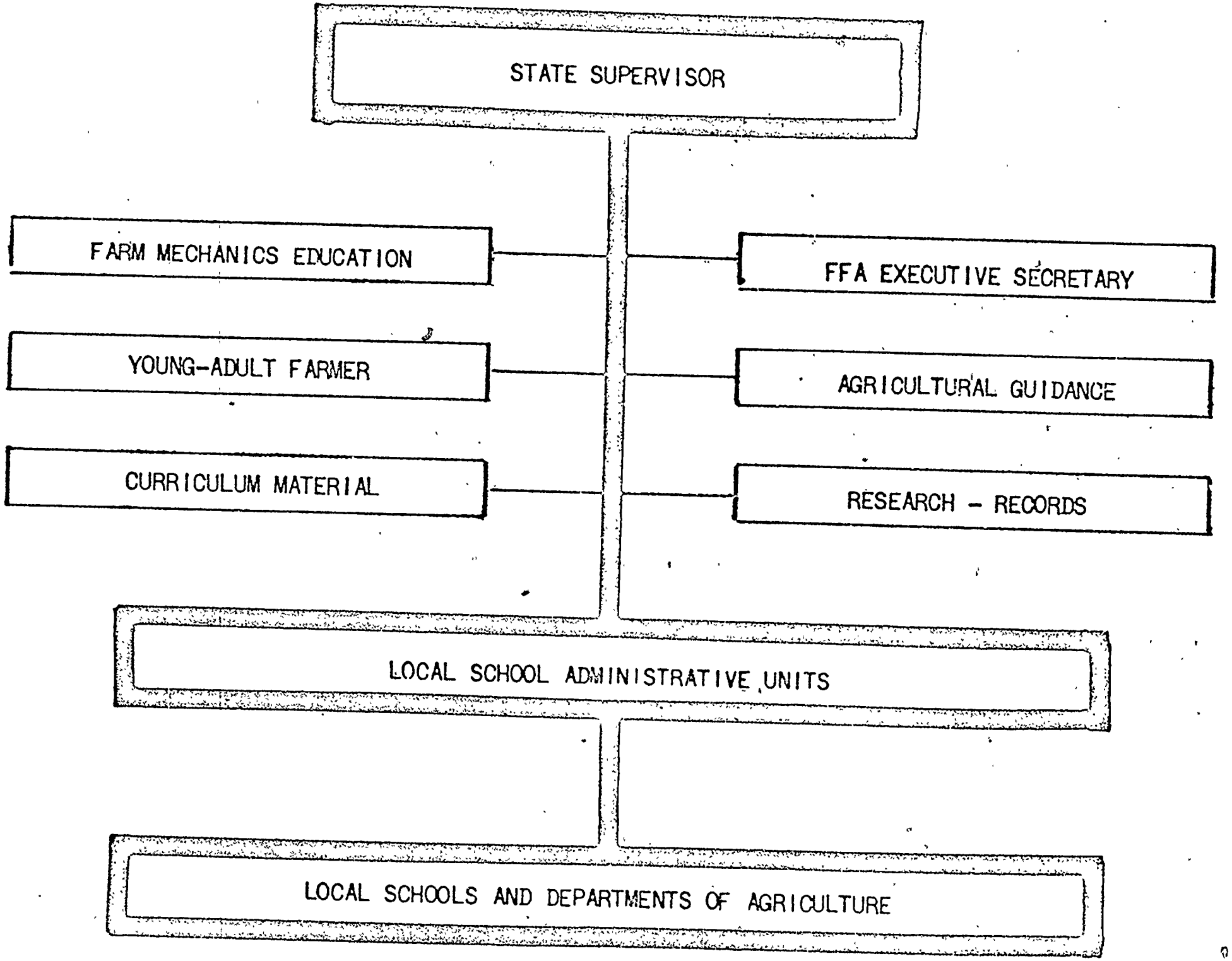

Figure 2. The Specialist Pattern

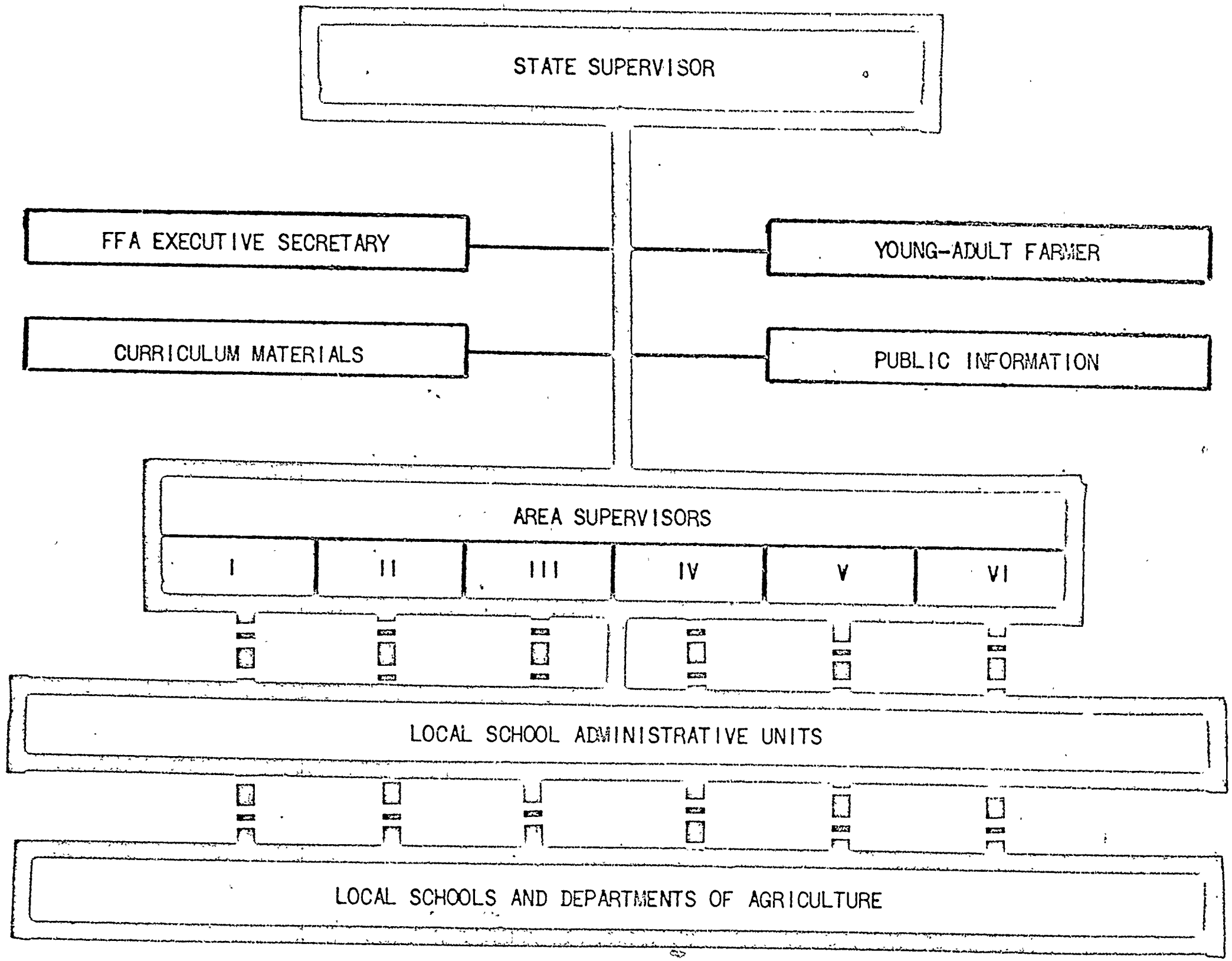

Figure 3. The Specialist-Supervisor Pattern

9. To maintain facilities at three youth camps.

10. To staff and operate three youth camps during summer months.

11. Other "business" functions.

7. To maintain a liaison with teacher educators concerning:
   - Recruitment of prospective teachers.
   - Pre-service education.
   - In-service education.
   - Teacher placement.
   - Student teaching.
   - Research.

The Administrative - Field Service Pattern (See Figure 4) - This pattern of staff organization provides for coordination of staff planning through an informal structure of committees involving teacher educators and supervisors. It also separates somewhat the administrative and field service functions of a state supervisory staff.

Some advantages and disadvantages are:

Advantages	Disadvantages
(1) Provides for some staff specialization in planning.	(1) Separation of administrative and field service functions can prevent effective program reviews.
(2) Provides for involving teacher educators in planning.	(2) Does not provide for a high degree of specialization.
(3) Area consultants are relieved of some administrative duties.	
(4) Area consultants may concentrate their efforts on improving local program plans and instructions.	

These four patterns have been presented to stimulate our minds and to cause us to reappraise our present organization of state staffs. No attempt has been made to identify the successful pattern. Also, no attempt has been made to point out all the advantages and disadvantages of each pattern. You, no doubt, see other advantages and disadvantages. Now let us consider a pattern which may be on the horizon.

A Pattern for the Future (See Figure 5) - The seminar title, "A Design for the Future," suggests that we look ahead and give consideration to new patterns of staff organization. I believe we will discover in the Report of the Panel of Consultants on Vocational Education[3] some implications for rather drastic reorganization of national, state, and local staffs in vocational education. Vocational agriculture will surely be affected in the general overhaul of federal aid to vocational education projected by the President's panel.

May I quote a brief section of Chapter 11 of the Report concerning recommendations for improvement? "It is recommended that the statutory and fiscal categories of vocational education conform to the groups of people who are to be trained and to the services assisting their training:

1. "Youth in high school who are preparing to enter the labor market or to become homemakers. -- Pre-employment training is normally given as a part of the regular high school program. Under the present pattern, the student spends at least half his school time in academic or cultural courses and in technical courses related to the occupational training, thus obtaining better basic education and preparation for citizenship.

2. "Youth with special needs. -- The needs of students with academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational education program are so varied that this group is separated in order that the training may be more appropriate to their ability, interests, and prior learning, and in order to avoid diluting the training given to students in regular vocational education programs. This training usually would be given as part

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[3]Education for a Changing World of Work, Report of the Panel of Consultants on Vocational Education, U. S. Department of Health, Education, and Welfare, Office of Education, Washington, D. C., 1963.

of the high school program.

3. "Youth and adults who have completed or left high school and are spending full time in preparing to enter the labor market. -- Some of these students have completed the normal academic high school program. Some have completed a high school vocational curriculum and desire more advanced or different vocational training. Others have not completed the high school curriculum, but can demonstrate their ability to benefit by training in a post-high school program. Some of the training programs are similar to those given in the high school; others are quite sophisticated, requiring extensive knowledge of science and mathematics.

4. "Youth and adults who are unemployed or at work, who need training or retraining to achieve employment stability. -- These young people and adults are returning to school to receive training to upgrade and update their skills, to learn new skills, or to supplement other training activities. This type of program may expand extensively to provide retraining for another occupation as a result of unemployment or in anticipation of displacement.

5. "Services required to assure quality in all vocational and technical education programs. -- The preparation of teachers, the preparation of instructional materials, research studies, occupational information, and vocational guidance all are necessary parts of effective vocational instruction. If the programs of instruction described are to achieve their objectives, these services to instruction are of vital concern."

If I see correctly the implications in this statement and the discussion in Chapter 11 of the Report, we may expect rather significant changes in the administration of vocational education programs in the years ahead. Consistent with the theme of this Seminar, "Keeping up with change is the key to survival; creating change is the key to leadership," perhaps it would be well for us to consider one pattern of organization quite different from those usually found in the states today.

Traditionally, organization patterns have been influenced greatly by the occupational categories identified in the Smith-Hughes and George-Barden Acts and certain supplemental acts of the Congress of the United States. However, if I understand correctly the Panel's recommendations, the "fences" surrounding these categories should be removed and a new approach to administering and financing vocational education be implemented. Figure 5 (a pattern for the future) depicts my concept of the pattern of staff organization for vocational education at the state level implied in the Panel's report.

The following basic changes are depicted in this new pattern of organization:

-- The present line staff positions - agriculture, home economics, trade and industrial, distributive education, and vocational guidance - would be subordinated and two sections established above them. One section would be concerned with high school vocational programs, the other section with post high school programs.

-- The high school section would be concerned with the development, promotion, implementation, and evaluation of appropriate pre-vocational and vocational preparatory courses in comprehensive high schools.

-- The post high school section would be concerned with the development, promotion, implementation, and evaluation of appropriate specialized pre-employment training, with retraining the employed and unemployed youth and adults, and with up-dating and up-grading training for employed adults. Such training would be provided in community colleges, vocational-technical area schools, and extension units of these institutions operated in cooperation with local high schools.

-- Professional staff in the post high school section would be specialists corresponding with old and new occupational categories.

-- Adequate auxiliary units and staff positions would be provided to serve the specialized needs of the two sections. Some possibilities are: Financing, curriculum materials, guidance and counseling, records public information, and research and development.

If the organizational pattern I have discussed is the pattern for the future, it has many implications for state leaders. We need to begin now preparing for the "new day" in vocational education. The changes proposed will require:

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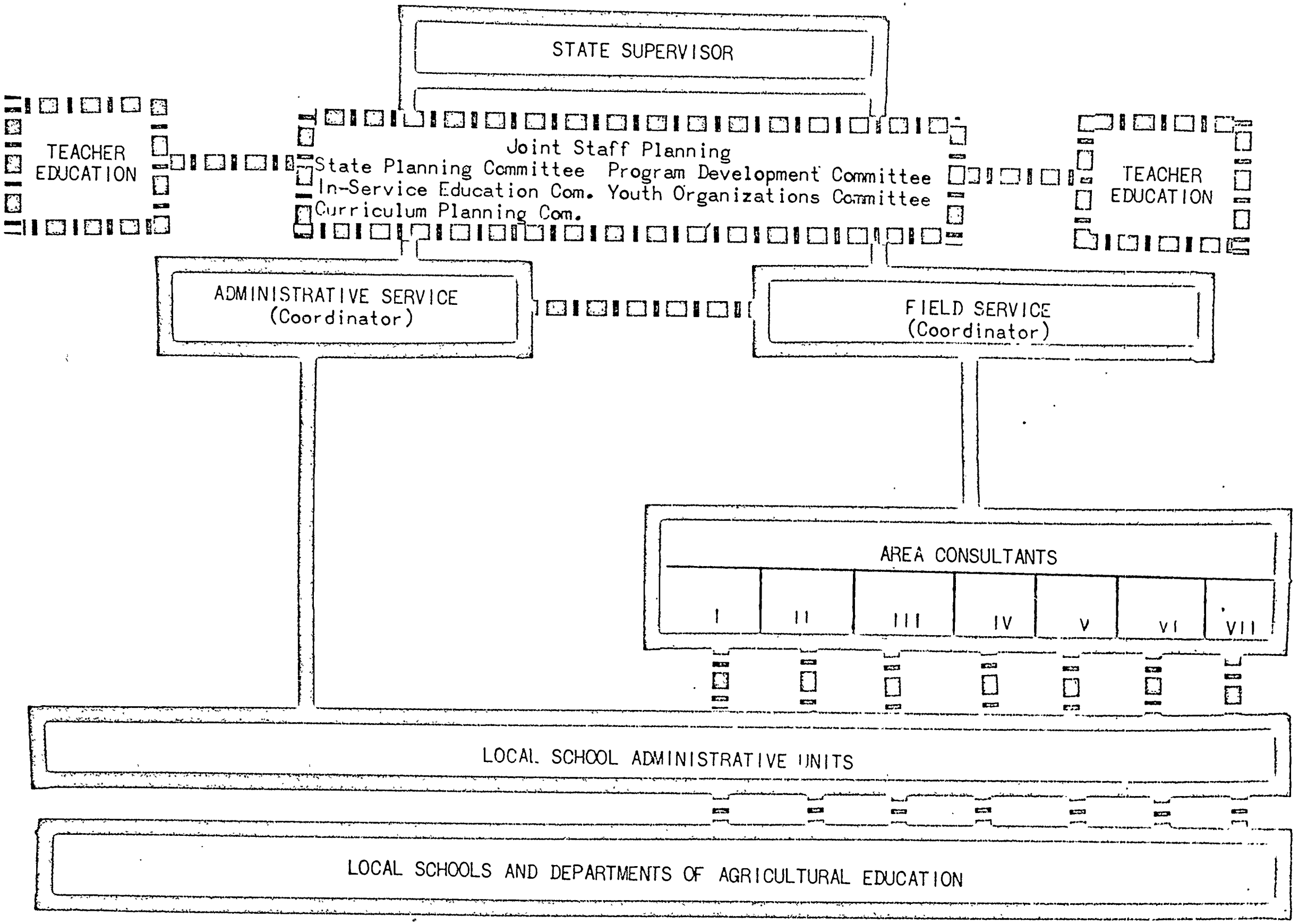

Figure 4. The Administrative - Field Service Pattern

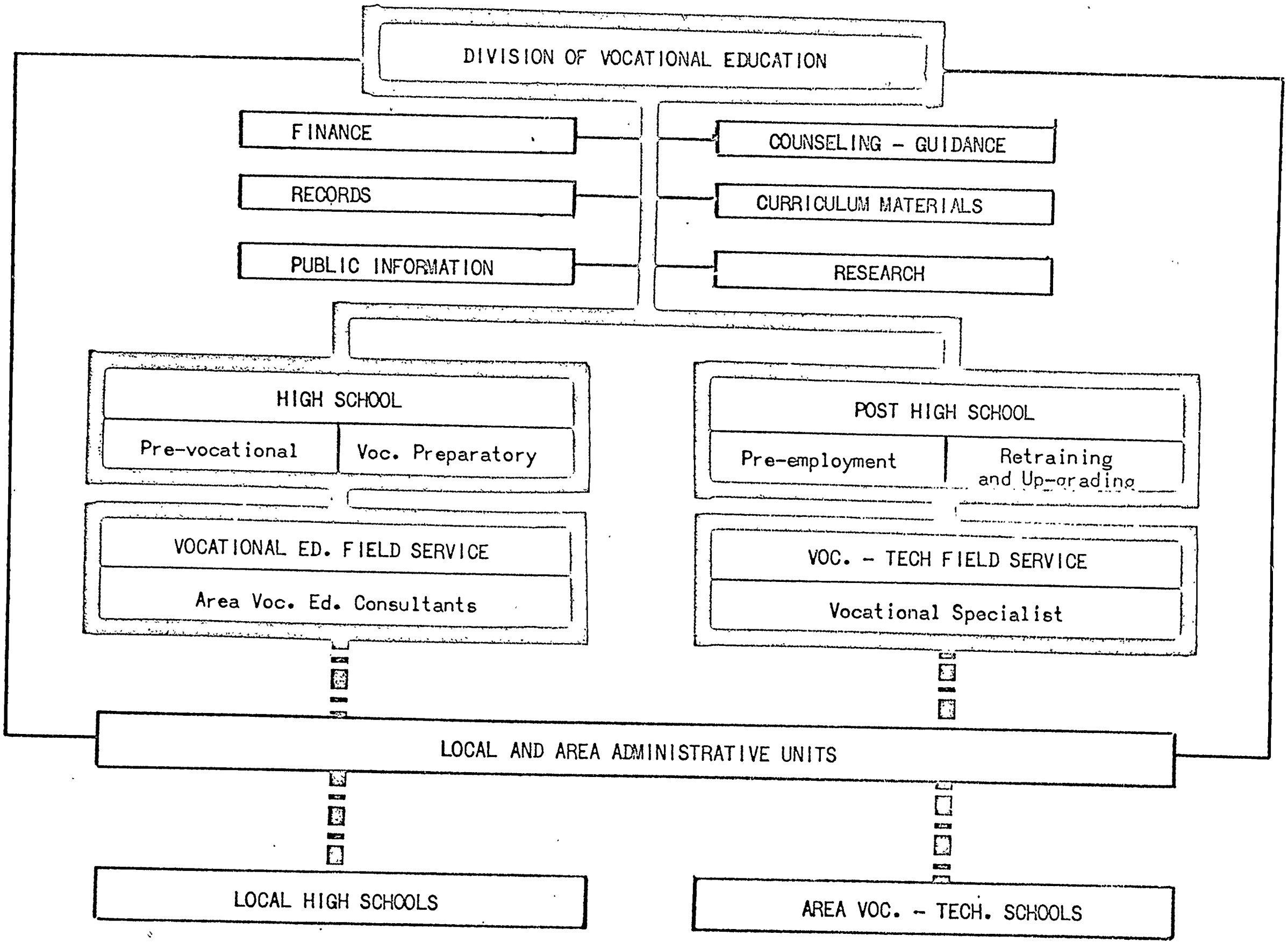

Figure 5, A Pattern for the Future.

-- Some retraining of state staffs.

-- Some replanning of teacher education programs - pre-service and in-service education and training.

-- Some retraining of local teachers.

-- Some new designs for local school vocational facilities.

-- New state plans.

-- New policies and procedures for financing programs.

-- Replanning some existing courses and developing some new ones.

If the pattern we have discussed is the "Design for the Future," some "fences" must come down. It will be a challenging era, but the job won't be easy.

Financing Agricultural Education Programs

The old adage "money talks" is true as it relates to agricultural education. Fiscal policies at both the national and state level have influenced local programs greatly. To a great extent it has controlled the development and expansion of programs.

Warmbrod[4], in his study of state reimbursement policies for vocational education in agriculture, found considerable variation in the reimbursement policies of the 48 states included in the study released in 1962. Some examples follow:

-- Fifteen states have foundation programs which include provisions which differentiate between vocational and non-vocational units in the distribution of general aid for public education. Provisions are made for (1) Bonus classroom units for vocational education, (2) Additional salary for extended term of employment, and (3) Additional attendance credit for students attending vocational classes.

-- Six states completely finance the all-day (high school) program using foundation funds only.

-- Three states finance the all-day program partly from foundation program funds and partly from vocational funds.

-- All other states provide reimbursement from federal or state funds, or both for the salaries paid teachers of vocational agriculture.

Policies concerning reimbursement for young farmers and adult farmer classes, for teacher travel, for instructional equipment and supplies, and for other costs vary widely among the states.

Thus, we see many innovations of financing already practiced by the states despite the criticism of rigid control of vocational funds. Perhaps we have had more flexibility in the use of funds than we have used. Maybe our lack of imagination and fear of change is a greater restraint than fiscal policies. At any rate, many critics sincerely believe our fiscal policies are out-of-date and need modifications.

The Panel of Consultants included the following recommendation concerning financial support:[5]

"It is recommended that the Federal Government provide financial support for vocational and technical education under the following five categories:

I. "High school age youth.
II. "Youth with special needs.

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[4]Warmbrod, J. R., State Reimbursement Policies for Vocational Education in Agriculture. Report of Dissertation, Mimeograph, University of Illinois, 1962.

[5]Education for a Changing World of Work, op. cit., page 255.

III. "Post-high-school youth and adults.
IV. "Out-of-school youth and adults.
V. "Services for vocational and technical education."

Changes in fiscal policies are needed and appropriate changes will help state leaders to influence local program adjustments and the development of new programs. However, I contend that we do not need to wait for these changes before beginning some experimental programs. Overmatched dollars and new dollars from our state legislatures may be used, upon the approval of state boards of education, to finance all or a part of the cost of experimental programs designed to find the way to needed changes in vocational training programs.

In the brief time remaining for this part of my presentation, I should like to tell you of some innovations for financing special projects in North Carolina. I chose these illustrations because of my familiarity with them; not because they have any more merit than those you are using. They illustrate some new projects which may be initiated within the present "fences", and with new state money.

A Vocational Curriculum Laboratory. For many years our vocational education leaders recognized the need for exercising more influence upon the structure and content of vocational courses in the public school. Four years ago a proposal was presented to the State Board of Education for the establishment of a new section in the Division of Vocational Education to develop curriculum materials for all the services in the Division. The Board adopted the proposal with enthusiasm and immediately requested state funds for its support. The laboratory is well staffed and has one of the most flexible budgets in the Division. Fiscal policies provide for the generous use of consultants in the development of materials.

A "Pilot" Program in Agri-business. Last year one school experimented with a combination "agriculture - distributive education - business education" course for a selected group of farm-reared boys. With some modifications, the course will be continued next year. Overmatched state vocational agriculture funds were used to reimburse two-thirds of the cost of this program. A similar program will be initiated at one additional school beginning next September.

Special Instructors for Adult Farmer Classes. Few regular teachers of vocational agriculture are qualified by training or experience to teach some of the highly technical unit courses needed by today's farmers. Last year our State Board of Education approved a proposal to use about $30,000 of uncommitted vocational agriculture and agricultural technology funds to reimburse the salary and travel of special instructors to assist the local vo-ag teacher with certain highly technical unit courses recommended by local advisory committees. The reimbursement policies for this "project" allowed 100 per cent reimbursement, whereas, only two-thirds reimbursement is allowed for regular vocational agriculture teachers.

Introduction to Vocational Education. This is a new course which will be introduced, on an experimental basis at the 9th grade level, in approximately 45 schools next fall. The course is being designed to introduce boys and girls to the world of work, to help them evaluate their interests, aptitudes and abilities in relationship to the world of work, to choose more wisely courses offered in the high school and to plan for post-high-school education and training. Our state legislature at its biennial meeting which ended a few weeks ago appropriated 1.5 million dollars to finance 100 per cent of the cost of this program during the next two years.

The "projects" just cited illustrate only a few of the many innovations that states are using in financing new services and new courses. However, it does illustrate the opportunities we now have to develop new approaches for up-dating, improving and expanding programs, for reaching more clientele, and for servicing their educational needs better. With the prospect for additional federal funds on the horizon, let us hope we may do more in the future.

Summary

Vocational education in agriculture must adjust to the rapid changes occurring in agriculture and in education. Its survival as a dynamic program of education in the public schools will depend upon the quality of leadership provided at the national, state, and local levels. We have a real challenge to analyze these changes, to make appropriate adjustments in existing courses, and to promote appropriate pilot or development courses which might lead to significant improvements in agricultural education.

It is appropriate to ask ourselves the question -- Is our present staff organization the most effective and most efficient organization for administering today's program of vocational education in agriculture? How well are we providing adequate professional services to local administrators and teachers? Are there professional services needed which are not provided? What changes or innovations in staff organization are needed to assure these services. If we can find answers to these questions during this Seminar, we may identify leadership patterns which will maximize our contributions to the educational program in the public schools. We might also set the pace for reorganization of other sections in the division of vocational education.

Fiscal policies of the United States Office of Education and state boards of education influence the kind, scope, and quality of local programs of vocational agriculture education. If existing policies are impairing our efforts to influence changes in our instructional program and our ability to meet the specialized educational needs of a broader clientele, then we must consider some changes. Perhaps the old occupational categories which have guided fiscal policies since 1917 are not appropriate for meeting the agricultural education needs of today's youth and adults.

Yes, the theme of this Seminar, "Keeping up with change is the key to survival; creating change is the key to leadership," should "ring a bell" which will result in much evaluation, reorganization, and replanning of vocational education in agriculture at the national, state, and local level. It will not be an easy job; but it will be challenging.

Thank you!!!

ORGANIZING TO MEET RESEARCH NEEDS

by
David R. McClay
Chairman, Agricultural Education Department
Pennsylvania State University

I. Importance of Research

Most progress and advancement in our rising standard of living has been due to planned investigation and research in the physical and biological sciences, including agriculture, the humanities, and in the social sciences, including education. In most cases, new knowledge or discovery of the basic natural laws did not happen by accident or were by chance observed by someone, but were the result of planned experimentation, study, and investigation.

What Research Can Do

Through research, or as Webster defines the term, "laborious, careful inquiry or investigation," programs of vocational education in agriculture in the nation's public schools have and will continue to improve. You ask, "What can research do for our field?" The following are only a few of the fruits of well planned and executed investigations:

1. Research can interpret what has happened in the past and tell where we are now.
2. Research can predict and give direction to the future.
3. Research can tell us how to do our jobs more effectively.
4. Research can keep us aware of change and the implications or effects of change.
5. Research involvement improves the competence of teachers, supervisors, and teacher educators.

What Research Cannot Do

Most of us will agree that research cannot do everything, that research without adequate follow-up action is of little value. Some of the things research cannot do are:

1. Make administrative decisions.
2. Establish values and philosophies.
3. Put recommendations into action.

II. Research in Agricultural Education - Where We Are Now

In order to better plan for the future, one should review the past and present. Let us quickly then "take stock" of where we are, where we have been, and our available resources for investigation or research in vocational education in agriculture in the public schools of the nation.

Dr. H. M. Hamlin in his recent book, "Public School Education in Agriculture," (Interstate, 1962) states, "Vast areas have been almost unexplored in research: for example, agricultural education in the general education of students in the elementary schools, high schools, colleges, and adult programs, education for non-farming agricultural occupations in post-high school institutions other than four-year colleges, education in the agricultural colleges, public policy for agricultural education."

He further stated, "The research that has been done . . . consists largely of small, uncoordinated studies conducted by graduate students. Often the problems attacked have not been researchable or have been insignificant, so that no conclusions of worth could be reached.

"A high percentage of the more than 3,000 studies which have been reported are normative studies, concerned with determining the current situation: the extent to which high school boys are enrolled in vocational agriculture enter farming or are successful in college, the practices in agricultural education in the communities and states, the opinions and attitudes of various groups. It is well to know where we are and where we have been,

but it is even more important to know where we are going. Creative studies have been rare. Few imaginative or daring hypotheses have been shaped and tested. Research usable in planning policies and programs for the future must be highly imaginative and creative.

"Little staff time has been allocated for research and development. Few funds have been available. If this portion of the program is to pay dividends, we must seek the best minds available and give time and freedom for them to function."

U. S. Office of Education - Vocational and Technical Division

For many years the Director of the Agricultural Education Branch has had a staff member with the title of Teacher-Training and Research Specialist. Many competent men have served well in this position. Through their efforts, the "Summaries of Studies" bulletin has been published through the years. This publication has been very valuable to graduate students, supervisors, and teacher educators. We are fortunate to have this convenient record of research done in our field. We thank Dr. Tenney and his predecessors for their support of this project.

In addition to arranging for the publication of the "Summaries of Studies" bulletin, the Teacher Training and Research Specialists have made valuable research contributions through surveys reported in bulletins that have been of considerable value to the field of agricultural education.

Part Played by A.V.A. and the National Center

The American Vocational Association has recognized the importance of research in all fields of vocational education. Perhaps the greatest contribution made has been to provide the regional machinery through which research committees could work, thus giving direction to member states. States limited in numbers of personnel have thus profited by the help given them by national and regional A.V.A. sponsored research committees.

The National Center for Advanced Study and Research in Agricultural Education, sponsor of this seminar, is just getting underway as you know, in giving leadership to needed research and study in the field of agricultural education. One of the first projects this Center attempted was the successful Research Coordination Conference held May 27, 28, and 29, 1963. This, we hope, is the start of a continuing and on-going national effort which no doubt will result in important advances in the field of agricultural education in the nation's public secondary schools. We all wish the Center well and offer our complete support.

The Research Picture in the States

I will be the first person to admit here that I cannot fairly appraise the research status picture in agricultural education of any state except my own. Although some observations have been made during short summer teaching "junkets" to three institutions in two regions in recent years, I must admit the following remarks are personal observations and perhaps are only a rough estimate of the true picture.

The first observation which I would like to make is that, research in agricultural education in the various states is heavily concentrated in the teacher education institutions. Perhaps this is as it should be. However, state supervisory staffs should be vitally interested in the research programs of their states. Supervisors in some states are involved in research in many ways. For example, they

1. Serve on state advisory research committees.
2. Suggest areas or problems needing investigation.
3. Help to provide budgets for support or research.
4. Interest foundations, industries, and individuals in giving material and financial support.
5. Do research.

Although most research in vocational education in agriculture is centered in the teacher education institutions of the states, some work in this field has been done by Rural Sociologists, Agricultural Economists, and by Agricultural Extension personnel.

Certain phases have been included in many curriculum and other studies by educators majoring in counseling, supervision, or administration.

In a few states teacher education departments (Ag. Ed.) have been fortunate in obtaining Agricultural Experiment Station funds for supporting staff studies. Although limited, these funds have made possible many significant studies that otherwise would never have been made. In Pennsylvania we currently have ten staff research projects supported in part by Experiment Station funds.

Perhaps most teacher education departments have devoted too large a share of their resources to pre-service and in-service education, to the preparation and dissemination of teaching materials and other important responsibilities while giving only token attention to research. I predict the future will see some shift of emphasis and resources while still attempting to maintain quality in teacher education phases of the department's responsibilities. A shortage of funds has also resulted in limited publication and dissemination of research that has been done in most states.

Most states have increased the teacher certification requirements and have raised the standards for permanent teacher certification. In many states, teachers are required to obtain advanced degrees within a limited time. This situation has increased the graduate enrollment in most teacher education departments. In most colleges and universities, graduate schools are raising their standards, too. Therefore, teacher education departments are currently faced with the challenge of doing a better job with more graduate students and no increase in staff personnel. Theses of graduate students are being increasingly scrutinized as to design, scope, and statistical treatment. This is good - but it requires an increasing amount of competent teacher education staff time.

Most teacher education departments need more funds for graduate assistantships. It has been my observation that Ag. Ed. Departments are at the bottom of the list as far as availability of funds for graduate assistantships are concerned compared to other departments in our respective institutions. Here is where state supervisors can be of tremendous help. Please support added funds for assistantships in teacher education budgets. Few of us have been able to secure funds from federal grant programs such as Hatch, N.I.H., and N.S.F., as have the various production and other departments in our colleges. I admit there are exceptions to every rule, but a good research program costs money, plenty of money, and we have never been so blessed in the field of agricultural education. This has hurt us. This is one reason why it has been necessary to establish a National Center for Advanced Study and Research in Agricultural Education - why we are here today.

Even so, there is considerable high quality research being done now by graduates in the field of agricultural education. We find more experimental research being done. One of the serious weaknesses of research in our field, however, is the lack of coordination as pointed out by Dr. Hamlin earlier in this presentation.

Teacher education departments in some states are quite adequately tooled-up for doing high quality research. Some have competent staffs, excellent graduate courses, fine facilities including libraries, availability of computer and other processing equipment use, and student study and work space. In many states, however, this is not true. All states should be given aid and encouragement in upgrading themselves - in addition to giving support to our National Center.

Some states are now requiring their Agricultural Education seniors to complete a senior thesis as a part of their undergraduate preparation. We are doing this in Pennsylvania and like the idea. An early orientation to research will, we believe, improve the quality of teaching done by our beginning teachers.

III. Some Questions to Answer, Some Problems to Solve, in a Plan for Research in Agricultural Education

Bob Taylor asked me to attempt to answer the following questions in my presentation:

A. What would be an effective national and state pattern for research in agricultural education? Where and how should the National Center fit into the plan? How could unnecessary duplication be controlled?

B. Are present methods of financing research in our field adequate? If not, what are the possibilities?

C. What areas or problems should have greatest priority in research to be done in our field? How determined.

D. Is there need to involve other areas of vocational education in our research? How might this be done?

E. How can the fruits of research best be used to give direction to future program developments?

F. How can research mindedness (know-how) be developed in present and prospective teachers, supervisors, and teacher educators both on the consumer and producer levels?

I wish to present an organizational chart for research in agricultural education which attempts to fit most of our resources into a logical plan. This plan is only a start. Refinement and changes should be made through the years as the result of experience, should the plan be adopted.

THE SUPERVISOR'S ROLE IN RESEARCH

The responsibilities of teacher educators in research is widely recognized. Often these responsibilities, although known by the teacher trainers, are not carried out to the desired extent because of heavy teaching schedules, an overload of graduate students who need attention, and for other reasons. Quite often supervisors do not consider research a part of their jobs. This should not be the situation. Supervisors have an important role in research.

The following list of responsibilities in the area of research should be recognized by supervisors and adopted as a part of their jobs:

1. Appraise the various areas and problems in vocational education in agriculture needing study and make recommendations to their state committees on research.

2. Secure financial support for research from state, federal, and independent or commercial sources.

3. Coordinate and encourage teacher action.

4. Help in putting the results of research into action.

5. Keep posted of research being done in the state and of national projects.

6. Evaluate the total vocational agriculture program in the state and shift funds to areas needing emphasis. For example, funds expended for certain contests and prizes might better be used to support research in finding solutions to problems.

7. Conduct research.

FINANCING RESEARCH IN AGRICULTURAL EDUCATION

As noted earlier in this presentation, we have seldom had adequate financial support for research in the field of agricultural education. All states have too few if any graduate assistantships for teachers or supervisors wishing to do post-baccalaureate work, too little time of teacher educators earmarked for research, little if any funds available for the publication of completed studies.

What are the possibilities for needed financial support for research? I am hopeful that pending national legislation will provide for some financial support of our research needs. Some of these needs are:

1. More part-time graduate assistantships at teacher education institutions.

2. Additional personnel, competent in research design and statistical techniques, for supervisory and institutional staffs.

3. Fellowships in agricultural education for graduate study.

PLAN OF ORGANIZATION FOR RESEARCH IN AGRICULTURAL EDUCATION

- National Level -

NATIONAL RESEARCH ADVISORY BOARD

*Chairman: (1) Director of National Center
**Members: (2) Chairman AVA Research Committee for Agriculture
(3) Chairman AATEA Research Committee
(4) Chairman AASAE Research Committee
(5) Chairman NVATA Research Committee
(6) Teacher Training and Research Specialist for Agriculture, U. S. Office of Education
Ex-officio: Dr. Arnold
Ex-officio: Dr. Tenney
Ex-officio: Chairman AVA Research Committee

NATIONAL CENTER

*Director

1. Conference to plan projects.
2. Provide opportunity for post-master and post-doctoral research.
3. Coordinate research.
4. Publish results.
5. Secure funds.
6. Coordinate inter-vocational field or program research.
7. Responsibility for international research relations.

AVA RESEARCH COMMITTEE FOR AGRICULTURE

**Chairman

Chm. Chm. Chm. Chm.

REGIONS

THE STATES

Chm. - Member of State Research Committee for Agricultural Education

U. S. OFFICE OF EDUCATION

**Teacher Training and Research Specialist - Agriculture
To represent all vocational divisions
Agriculture
Distributive
Industrial
Homemaking
Others

AATEA

**Chairman of Research Committee

AASAE

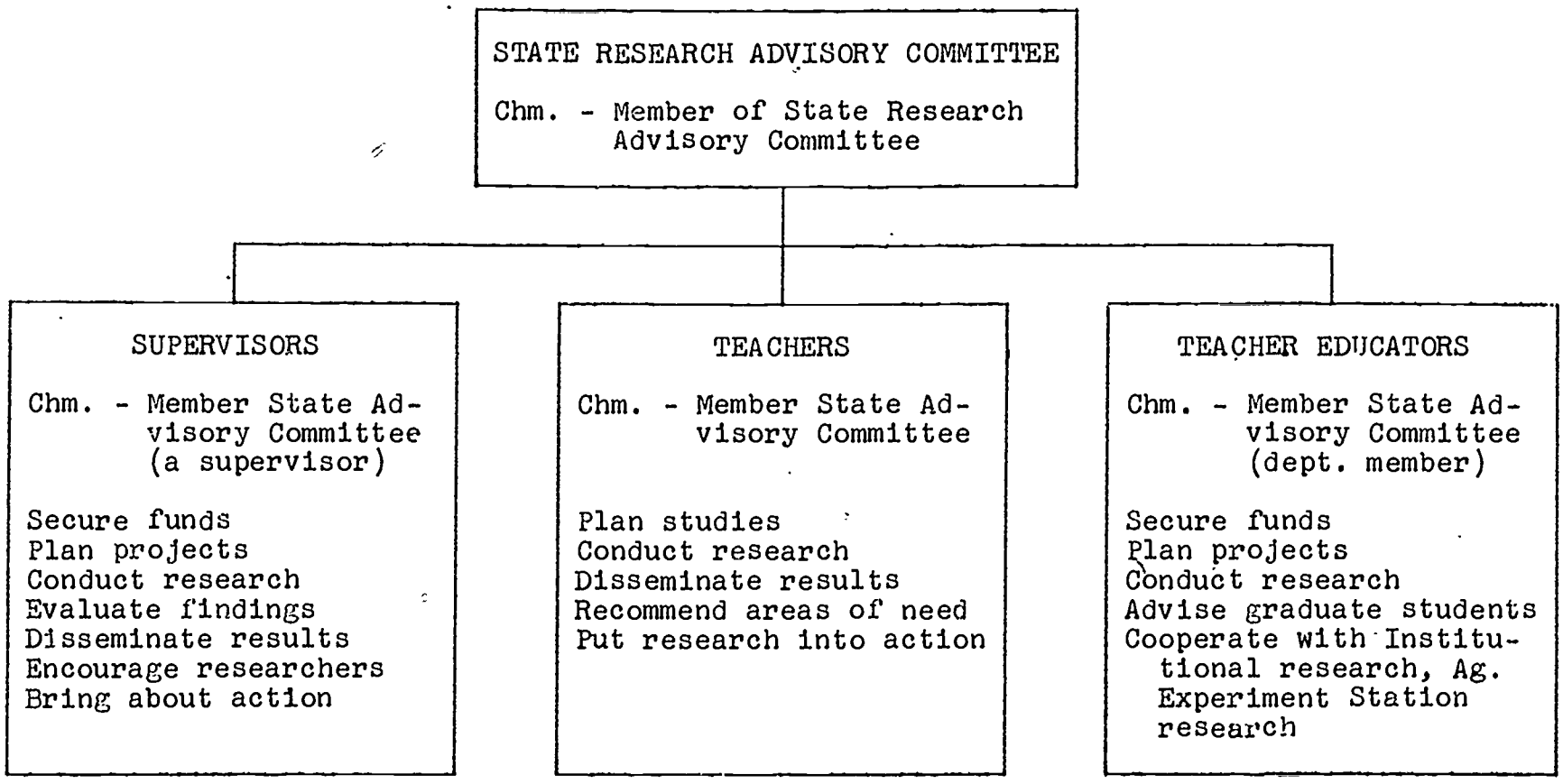
**Chairman of Research Committee

NVATA

**Chairman of Research Committee

PLAN OF ORGANIZATION FOR RESEARCH IN AGRICULTURAL EDUCATION

- State Level -



SUGGESTED MEMBERSHIP FOR THE STATE ADVISORY COMMITTEE ON RESEARCH IN AGRICULTURAL EDUCATION

The State Supervisor of Agricultural Education and Chairman, Supervisors' Research Committee
Head Teacher Educator
Teacher Educator with major research responsibilities
President of State Vocational Agriculture Teachers Association and/or Chairman, Research Committee
Chairman of State Department of Public Instruction or State Bureau of Education Research Committee
State Director of Vocational Education
Institution Director of Vocational Teacher Education

DUTIES OF THE COMMITTEE

1. Define and isolate problems to be studied.
2. Suggest how studies might be conducted.
3. Assist in securing financial support.
4. Review studies planned, underway, and completed.
5. Suggest how completed studies might be used.
6. Review studies planned, underway, or completed in other fields of vocational education.
7. Put results of completed studies into action - adoption.

4. Post-master and post-doctoral research grants-in-aid for work at the National Center and at universities.

5. Support for printing and publication costs.

6. Support for data processing costs.

Foundations, farm-related businesses and government agencies are sources for research support. Agricultural Experiment Stations are another source of funds. In Pennsylvania, we have secured help from the following sources: Farm Credit Banks of Baltimore, State Game Commission, Pennsylvania Electric Association, Rural Electric Coops, in addition to the Experiment Station of the College of Agriculture.

It is hoped that in the future existing national programs like N.D.E.A. and N.S.F. might more broadly interpret the projects for which they can give financial support. However, if researchers in the field would use more imagination and effort, we could no doubt obtain support now for some projects under these programs.

AREAS OR PROBLEMS THAT NEED TO BE STUDIED

Some of the most pressing areas for study in the field of vocational education in agriculture are:

1. How should the vocational agriculture course of study be revised to most effectively prepare youth and adults for employment in off-farm agricultural occupations?

   What are the characteristics of a good cooperative education program (placement for experience on farms or in businesses) in vocational agriculture?

2. How can two or more vocational programs (T & I and Ag, for example) be integrated into a single program or course of study in order to meet specific educational needs of certain occupations?

3. How might vocational agriculture fit into area technical school programs and what would be the characteristics of the agricultural work in a technical school?

4. How does vocational education in agriculture fit into school district reorganization (establishment of larger districts)?

5. How can the image of vocational agriculture best be improved?

6. What are the characteristics of a good supervisory program in vocational education in agriculture for a state?

7. What are the characteristics of a good pre-service and in-service teacher education program for a state?

8. How best can the new teaching and learning tools such as TV and programmed materials be most effectively used in vocational agriculture?

9. What changes in the farm mechanics phase of vocational agriculture should be made because of changes in agricultural technology in recent years?

The state research committee could, as one of its functions, assign or recommend priority to the problems identified for study.

SUMMARY

In closing, I feel we have a great opportunity now with the establishment of the National Center for Advanced Study and Research, to coordinate our research efforts in agricultural education. I hope the needed funds may soon be forthcoming for support of this Center.

Supervisors and administrators need to take a more active part in the research that will be done in the field of agricultural education in the future.. The establishment of state committees for research in agricultural education is recommended in which supervisors,

administrators, teachers, and teacher educators together analyze problems, establish priority for work, seek financial support, disseminate results and secure action.

In the future, problems in the field of education will become numerous and complex. If we are to make intelligent decisions, we must have all of the facts, know the avenues for action and possible outcomes. This will require laborious and careful inquiry and investigation, or research in agricultural education.

THE ROLE OF PROFESSIONAL ORGANIZATIONS IN ADVANCING VOCATIONAL AGRICULTURE

by
M. D. Mobley
Executive Secretary
American Vocational Association

It is a real pleasure to be in your midst and an honor to have a part on your program.

Those of you assembled here for this seminar are participating in an historic event. This is the first seminar held at the National Center for Advanced Study and Research in Agricultural Education. The establishment of this Center is indeed a forward step.

The American Vocational Association is proud to have had a part in the establishment of this National Center. It is the hope of our Association officers and leaders that this Center will be developed and maintained on a basis which will enable it to serve effectively our profession - and thus help assure the future well-being of the program and its benefits to the people of our nation. No program can move ahead without research to point the way and without adequate well-trained leadership.

This instutition, in the years ahead, will play an important role in helping to strengthen the "professional dignity" of those who are engaged in the field of vocational agriculture. Professional dignity is essential to the well-being of any professional group.

You may ask the question, "What do we mean by professional dignity?"

Professional is derived from the word "profession" which means "a vocation requiring knowledge of some department of learning or science." Dignity means "honorable place, elevated rank, worthiness, degree of excellence." When we use the two words - professional dignity - in describing an individual, we mean that such a person is engaged in a worthy occupation of elevated rank and that he has respect for his occupation, believes in it and is anxious always to improve himself in order to render more efficient and effective service.

This, to me, describes those of you who are assembled here this week to exchange ideas and to explore methods and procedures that you may pursue in order to render greater service to the people in your respective states.

All of you who are present at this seminar are engaged in a profession that has as its major goal the preparation of youth and adults for efficient work and worthy citizenship. To do your job effectively, you must have a high respect for the dignity of work - work of every kind. All honest work is worthy work.

To make satisfactory economic and social progress, a nation must find ways to dignify and glorify work - especially work that must be done by skilled hands and by scientifically and technically trained personnel. Making vocational and technical education an integral and important part of education is certainly one important step in glorifying and dignifying work.

A man must be proud of his occupation in order to make maximum progress.

One of the major goals of professional organizations is to help its members develop professional dignity.

A few years ago, while on a trip that took me around the world, I had an opportunity to spend some time in several of what we call underdeveloped nations. From my study of the economy of these countries, I am convinced that one of the main reasons they have low living standards is the attitude of their educated leaders toward work with the hands. These countries, in my estimation, always will suffer from poverty and all that it entails until they have learned to glorify and dignify honest work.

Throughout the annals of history, many have found that they can further professional growth and increase professional dignity through the organization of professional associations such as the AVA, the NVATA, and state vocational associations. Through activities of such organizations, members grow and develop, they exchange ideas, and are of mutual service each to the other. Through the ages, man has learned that he cannot live alone. He also has learned that in order to further the development and improvement of himself

One of the primary purposes of any professional organization is to help its members accomplish things they cannot accomplish working as individuals. A person in any professional field who fails to keep abreast of developments is destined to failure. If enough of the individuals within a group fail to keep abreast, then the profession itself becomes obsolete and ineffective.

Often, I am asked what part state vocational staff members should take in promoting activities to strengthen professional organizations. Through years of close observation of developments in the several states of our nation, I have reached the definite conclusion that those in leadership positions who are ineffective as leaders in professional organizations are also ineffective as leaders in developing vocational education programs. A person who does not possess the leadership ability to obtain the full participation of those under his supervision in professional organizations usually lacks ability to get his subordinates to develop and maintain effective programs in vocational education. Participation in professional organizations and good vocational programs go together like ham and eggs.

If you will review vocational education programs in the several states of our nation, you readily will see that the states that are moving ahead, that are making progress, that are developing effective programs and needed programs, are those same states that have strong state vocational associations and that have a high membership in the AVA and other professional organizations. Why is this true? Because man cannot live alone. There must be cooperation, there must be the incentive to do a good job. Professional organizations, if operated on a sound effective basis, provide this incentive. They also provide the strength and influence that is essential if funds are to be obtained to carry on the kind of program that is needed to meet the needs of our people.

Within most professional organizations, and certainly within the AVA, there are many worthy associated groups. The NVATA, to name one within the AVA, has done a marvelous job in developing an esprit de corps - second to none - among its members. I challenge you to find any large group of educators in the United States which is more devoted to its work and better trained to do its work than the vocational agriculture teachers of our nation. The NVATA and the AVA have played a major role in their professional development and attitude. I am sure we all would agree that we have some within the Vo-Ag ranks who are not as good as we would prefer. We can rest assured, however, that they will improve their ways or will be eliminated, in due time, from the program. The professional attitude of the vast majority of the NVATA members is such that they will not tolerate for long an inefficient teacher who lacks interest in professional growth.

I wish that every division in the AVA would develop an organization similar to the NVATA. Some groups have started on such a program. We should give them every encouragement and cooperate fully. As these new units within the AVA are developed, we constantly should review the activities and be sure that proper relationships are maintained. This has been done between officers of the AVA and the NVATA. There is indeed a splendid cooperative relationship existing today and we anticipate it will continue in the future.

Occasionally, I am asked the question, "Should every teacher in vocational education be a member of his professional organization?" The answer is an emphatic "yes"! A teacher who is not an active participating member in his professional organization at the local, state and national levels is like a ship without a rudder. He is sailing along with no means of determining his own course. He is seriously handicapped in keeping abreast of new developments and new ideas in his profession. Without this, he soon becomes obsolete in his profession and can look forward to little or no progress in his professional career and certainly will fail to be of value in advancing his own profession.

In closing, may I point out the fact that professional organizations play a major role in securing approval of legislation involving the interest of the members. In a democracy such as ours we must pool our influence if we are to secure for our members the sort of legislation that will help them render the service which is expected of them.

Occasionally I hear individuals who are members of the AVA state that they want to do their professional job but have no interest in legislation. No group can move ahead without adequate funds and without legislation that permits them to provide the kind of services that are needed for our nation. In my estimation, it is difficult, if not impossible, to separate one's professional growth from participation in efforts to secure approval of needed legislation which makes it possible to carry out professional responsibilities. You cannot be a responsible professional worker without the funds which enable you to fulfill your responsibilities.

For more than fifty years, the AVA has been a tower of strength in efforts to secure favorable legislation and federal funds that make it possible for vocational educators to do the job that must be done if we are to continue as a strong and free nation. You cannot buy professional services without funds. Had it not been for the AVA, there would be no federal funds for vocational education, there would be no nationwide program of vocational education and there would be no National Center. In fact, there would be no program of vocational education as we know it today.

The future of any professional group is tied inseparably to the strength and effectiveness of its professional organizations - at the local, state and national levels.

We can expect that agriculture will become increasingly large in unit size. Already it is the nation's biggest business. If present trends continue and more than one hundred thousand farms "disappear" annually -- through consolidation with other farms combined with loss of land to non-agricultural uses -- we may expect a population of farm producers made up of only five or six per cent of the population within the next 8 to 10 years.

The farms remaining, about 5 to 6% in 10 years (7.7% now) will become increasingly efficient. Producers will demand that there be little "time lag" between discovery and their access to information and procedures affecting their profits.

The family farm -- constantly changing in definition and concept -- will be larger, more efficient, and operated by highly competent managers well trained in the specialities affecting their production.

Capital investment per farm will continue to increase.

Corporate or cooperative financial structure to obtain adequate capital will be common.

Highly specialized services, both public and private, will find increasing use. The plant pathologist or soil scientist, biochemist, and animal and plant nutritionist may "hand out his shingle" and find an enthusiastic clientele, in somewhat the same manner now accepted for the doctor of veterinary medicine.

Agriculturally related occupations will employ even greater numbers, to the extent that approximately 40% of the total population will remain in the agricultural picture. Agricultural research, education, agricultural industry and business, agricultural services, communications and agricultural conservation and recreation will continue to expand.

I know we will agree that the agriculture of the future will demand people exceptionally well trained. Increasingly we will find the manager or owner of the farm or ranch with a degree from an agricultural college. As a matter of fact, you are observing this trend as you work with the young farmers of the nation. This person, as a high school student, is interested in agriculture and likely will be found in the high school courses in agriculture. He will have high interest in practical agricultural information and will at the same time be aware of the necessity of preparation for college entrance.

Other young men will be found in your agricultural classes who will find their future in highly specialized agricultural occupations requiring post-high-school training but training of less than college grade - the technicians of the modern agriculture. Their future work requires competencies more specialized than it is reasonable to expect their receiving at the secondary level and calling for additional training, perhaps in an area vocational school or in a terminal junior college course or courses.

Agriculture will continue to need agricultural workers in areas requiring a lesser degree of specialization. They too are likely to be found in the agriculture classes of the secondary school and will likely enter their occupation directly from it.

In addition, many of the students who later will be found in the agricultural occupations elect agriculture at the high school level and may or may not continue that agricultural training in technical school or college.

Thus society expects of the high school agriculture teacher results extremely difficult to attain. He is confronted with the necessity of providing challenges and experiences scholarly enough to be considered college preparatory, technical enough to motivate for additional technical training and general enough for those to enter a wide variety of agricultural occupations directly from the classroom.

How do the Colleges of Agriculture assist in this job? Back to the title of my talk. Let me describe how we do it. Last March 4 a member of our Department of Wildlife Management drove about two hundred miles west of his place of normal duty and arrived in Kerrville, Texas, shortly after noon. There he conferred with the area supervisor and vocational agriculture teacher for about an hour, and was oriented by them in the principal wildlife problems of current interest, the probable training and experience of teachers of the district in wildlife management, and of other matters to be handled in a meeting. At about 4:00 p.m. twenty vocational agriculture teachers arrived for their regular monthly district meeting. Our staff member presented a 1½ hour program. He included results of research in the subject matter field and gave an analysis of current progress. He offered suggestions for teaching wildlife management in that specific area. For approximately 30

minutes, he answered questions raised by teachers. Then he returned to our campus at College Station.

This procedure was repeated at about forty district meetings last year involving some twenty-five of our staff members in various disciplines and approximately six hundred vocational agriculture teachers.

The mechanics for obtaining these services are very simple. As the vocational agriculture teachers prepare their annual programs by districts in consultation with area supervisors, they have before them a listing of personnel available from Texas A&M University for in-service meetings. This listing is prepared by our agricultural education department after surveying each department head in the school of agriculture and the school of veterinary medicine. It is understood of course that this listing is suggestive and that other topics and other personnel may be requested. We also include in this listing an invitation to hold district meetings at research field stations for briefings on research under way and on results of research completed. The vocational agriculture teachers indicate their preferences to area supervisors, who compile an area request and submit it to Mr. George Hurt, the State Director of Agricultural Education. As conflicts occur in the requests, they are reviewed by Mr. Hurt's staff, the conflicting requests reconciled by substitution of personnel or by other means, and a master copy of requests for personnel from Texas A&M University is compiled and transmitted to the Assistant Commissioner for Vocational Education.

A few days later I receive a letter requesting these services accompanied by a master schedule showing time, place, date, subject and other pertinent information regarding each meeting. After reviewing these requests I forward them to the various department heads with the request that the appointment be scheduled if the schedule of the staff member will permit it and that the area supervisor be advised of acceptance of the responsibility. A staff member in the agricultural education department is designated to coordinate details of these meetings. It becomes his responsibility to remind our staff members one to two weeks ahead of the meeting date, provide liaison with area supervisors and to process through the agricultural education department travel requests and vouchers for these trips.

The reports from our staff, from Texas Education Agency staff members and from vocational agriculture teachers concerning these efforts are highly favorable. In-Service education in the field is generally considered one of our most significant contributions to the program of vocational agriculture.

But we realize the limitations of a meeting of two hours duration. To offer more complete coverage in specific subject matter areas, we offer short courses during the summer specifically designed for vocational agriculture teachers. The short courses range in subject matter from entomology to communications. Eighteen two to four day short courses are being offered this summer in nine departments of our school of agriculture. We utilize the most qualified personnel available for instruction, wherever they may be located. Included as instructors in short courses this summer are research and extension personnel, specialists of the agricultural adult specialist program; representatives of commerce and industry, outstanding vocational agriculture teachers and members of Texas Education Agency's agricultural education staff.

These particular short courses are coordinated in the agricultural education department. A tentative listing is compiled in the fall months by anticipating teacher demand. The list first is submitted to our department heads for review by each departmental staff. Suggestions, deletions and additions are made and reported back to the department of agricultural education. A revised listing is then submitted to my office for review. Following approval, the listing is forwarded to the Texas Education Agency for Director George Hurt's review and approval and becomes a part of his official listing of approved short courses for vocational agriculture teachers. The mechanics from that point include sending out registration forms, pre-registration, the preparation of content materials and the conducting of the courses. Evaluations indicate that teachers have a high regard for these short courses.

I mentioned that these short courses are specifically for vocational agriculture teachers. They should not be confused with either the more usual short courses offered producers and other members of the agricultural complex, although vocational agriculture teachers often make up a part of their membership. Neither should they be confused with short courses taught throughout the state by specialists in the agricultural adult specialist program, a program to be described by Mr. Hurt later as a part of this conference. Short courses of two days' to one week's duration then are a part of the contribution of the agricultural college to the vocational agriculture program.

Vocational agriculture teachers in Texas are fortunate in having a liberal textbook policy, with a multiple list of texts and the ability to obtain them in numbers up to 220% of their vocational agriculture enrollment. All of us are well aware that much of the new and important subject matter in agriculture must be taught before the necessary time has elapsed which would allow it to be included as a part of a textbook. One of the most usual methods used in fulfilling this need is the publication of smaller bulletins and reports. When the manuscript for a bulletin or report from research is submitted for publication to our office of Agricultural Information, the staff member in Agricultural Education, responsible for assistance to vocational agriculture in subject matter, is notified. He reviews the manuscript to determine its adaptability for use by teachers of vocational agriculture. Some experiment station bulletins, pertaining to precise areas of agricultural technology are written in language too technical for the high school level. These are determined not to be useful for high school agriculture classes. Extension bulletins, written by extension and research personnel for consumer use, seem to offer the most promise for adaptation in vocational agriculture classes. Our staff member reviewing the manuscript then prepares a brief review of the publication, recommends its purchase by Texas Education Agency and sends each area supervisor the review and a card for indicating the number needed in his area. The needs of the ten areas are then combined and a recommendation submitted to Mr. Hurt, Director of Agricultural Education, for the purchase. Through this procedure teachers obtain multiple copies of the publications for classroom use. By knowing of the number required before printing we are able to supply the bulletins at a reduced "end of run" price. These bulletins are shipped in bulk and are distributed by area supervisors.

These are examples. We perform other services. A Young Farmer Field Day is held annually on our campus with programming in many agricultural subjects supplied by our staff. One of Texas' ten areas meets annually with us for a mid-winter conference, and much of the technical presentation is the responsibility of our staff members. We often are called upon to perform specialized functions at the state in-service meetings of vocational agriculture teachers. Twelve hundred Future Farmers come to A&M in May each year for the State FFA Judging Contests, coordinated by the Agricultural Education Department and involving a great deal of detailed preparation and organization in several of our departments. We service programs in adult education for local vocational agriculture teachers to an extent difficult to determine, though limited. Our Agricultural Education Department publishes news letters and special helps bulletins periodically and maintains a film library for the use of vocational agriculture teachers. (These probably are no different from the services performed in your states.)

Let me touch briefly on research. The universities are concerned. Research is, or should be, an important function of your profession; without it, stagnation and regression is likely to occur. Effective research -- research that has sufficient depth and scope to discover new knowledge and better ways of doing things -- cannot be done without extensive planning. Seldom are valuable discoveries made by mere accident. You are, no doubt, aware of the time involved in formulating researchable problems, designing procedures for solving them and interpreting data. Yet, my observations cause me to conclude that research in your field is often treated as something of a stepchild; it receives attention only after all other concerns have been satisfied. I would, therefore, suggest that research be given equal priority with teaching and extension.

Research, if it has any value, must ultimately bring about change. Therefore, cooperation is essential among administrators, supervisors, teacher-educators and teachers. If research is conducted, written up, placed on the shelf of the investigator and forgotten, we can safely conclude that little has been accomplished. Dr. Earl Webb of our Texas A&M staff, whom most of you know, serves as coordinator for a state-wide research committee composed of teacher educators, supervisors, and vocational agriculture teachers. We believe research efforts embracing several institutions and responsibility areas (supervision, teacher education, etc.) need to be coordinated by an individual or small committee. Otherwise, continuity of effort is lost. Furthermore, it is believed that a committee functioning from all levels of the profession will enhance administrative changes when research findings dictate that changes are needed. However, the structure of this committee may be such that unconscious bias and prejudice may hamper objectivity in formulating and seeking solutions to problems or testing hypotheses. It is extremely difficult for a group to evaluate itself or its efforts fully. I believe the committee might be improved materially by including representatives who have interests not directly concerned with the welfare of vocational agriculture.

A superficial review of research reported in Summaries of Studies in Agricultural Education seems to warrant a conclusion that many studies lack desirable depth, scope and objectivity. If my observations are justified, the cause may be due to an immature concept

of research and to the priority assigned to it among the multitude of services you try to render. Therefore, I suggest several points which I believe would improve the status of your investigations.

The research should be strictly objective. There is no place in today's world of knowledge for the person who has written a conclusion and then seeks data to support it. It seems to me that in some cases research efforts have been directed toward justifying what is now being done rather than to determine if they have any worthwhile values.

Our concepts of research should be broadened to embrace research as a discipline. I am wondering if the portion of the title given this National Center, "Research in Agricultural Education," is not indicative of a restrictive concept of research. Research in agricultural education involves many disciplines including biology, psychology, sociology, the arts, sciences, and others.

Utilize the research facilities available on the campuses of your agricultural college. This would include researchers, subject matter specialists, data processing equipment, and the like. Thus, the objectivity, scope and depth of your research could be materially improved. Be sure to seek advice in design from statisticians and other competent individuals in your state. Our staff is assured that worthwhile projects can be supported from experiment station funds if they meet the requirements of respectability in an exact and rigorous discipline.

I have failed to mention the most obvious of responsibilities. Those who train your teachers through formal college credit courses must be constantly alert to the needs of the profession. We have during the year just ending revised the undergraduate agricultural education curriculum in an effort to strengthen those areas now receiving greater emphasis in your work. Proposals are currently being considered for changes in student teaching procedures -- changes designed, we hope, to produce more proficient teachers. Graduate studies are also being evaluated constantly. The demands of your clientele in the field bring before us constantly parallel demands for new courses, course revision, changed emphasis and a constant need for increased knowledge. We pledge our full efforts toward meeting that end.

These things we have done and are doing to provide assistance to the vocational agriculture program.

While we have a degree of pride in the services we now provide for vocational agriculture teachers, we can see distinct weaknesses and obvious limitations. There is so much to be done and so few to do it that I am sure you will agree we can ill afford duplication in the use of public funds regardless of the "channel" or the agency responsible for administration of the program. We should face the fact that overlapping of duties and responsibilities does exist in the functioning of various programs. Vocational agriculture teachers and county agricultural agents do work with the same people. Both are responsible for youth programs, and often they are the same youth. Agricultural specialists representing the agricultural extension service present programs designed to improve agriculture in local areas; it is possible that specialists of the agricultural adult specialist program are frequently scheduled in the same communities or counties at or near the same time. We need to develop machinery for more efficient use of manpower available.

We need to be of greater assistance to vocational agriculture teachers in keeping them abreast of results of research and research in progress. The limited number of in-service meetings we are able to service seems far short of the number and the total time necessary for functions this important.

As the various segments of the national economy become ever more specialized it becomes increasingly important that each of the components have a better than superficial realization of the contribution of the others. For many years we have taken for granted the realization by our total citizenry that agricultural progress and prosperity is essential to the progress and the prosperity of the entire economy. And for many years we were right in that assumption. At a time when farm population approached a majority of the entire population and with a significant number close to the farm in social customs and business relationships, we had little to fear from lack of understanding and appreciation of agricultural process and problems.

The changing of occupations has brought about corresponding changes in attitudes and understanding concerning agriculture. No longer do we have a backlog of understanding of agriculture. Second and third generations away from the farm no longer have a reference

point of personal experience and interest in things that are agricultural.

It is in the public interest, therefore, that these understandings be reestablished. This can best be accomplished by formal education processes. I am suggesting that agriculture should be a part of the training of every person. It should be taught as a cultural course in the same manner as -- and if necessary in preference to -- other cultural courses for non-agricultural students. Properly done, no course could contribute more to enlightenment and refinement of taste acquired by intellectual and aesthetic training.

At what level should this training occur? We have considered the possibilities of a cultural course in agriculture at the college level. But you are well aware of the percentage of students who enter college. If it were required of all college students it would reach far too few.

I am aware of the fine progress in the use of agricultural principles and examples in courses at the elementary and junior high levels. At the same time, I question whether the amount of this training is in proportion to the importance of the subject. I recognize the difficulty of introducing additional curricular components into a schedule already crowded. I further see the difficulty that would confront school administrators in finding teachers competent to handle such an expanded agricultural program.

I believe the job can be done by the vocational agriculture teacher. He has the background, the experience and the training to do it well. His influence would be felt at all levels of society by all segments of the population in the critical days ahead.

I am aware of the controlling purposes of vocational agriculture under present statute. Also, I know -- and congratulate you upon -- recent proposals for amending both the Smith-Hughes and George-Barden Acts broadening your basis of operation. I suggest even greater responsibility preceded by even more significant amendments to the acts.

The time is here, in my opinion, for a realistic reevaluation of the vocational agriculture program and the refinement of its objectives. Traditionally you have sought to train young men for establishment in farming. Your efforts by custom have been directed toward those not preparing to enter institutions of higher learning.

But, you find that many of your students do enter college and many of your students enter occupations other than farming. You find that many of your students have no opportunity to enter farming directly, for many reasons. You find that the situation just doesn't quite fit the mold, and you seem to hold a degree of chagrin and even guilt because of it.

Where do your students go? I know that some go to college with strong motivation to excel in agricultural studies, for we see them daily. For the others is the time spent in your vocational agricultural courses of sufficient importance to their future careers or professions to justify the reduction of training in other courses. As I said in the beginning and let me repeat, we share the responsibilities in these decisions that must be made and which will affect the future educational programs in agriculture.

In any program of cooperative activity between agencies and organizations problems of financing arise. Our department of agricultural education, perhaps our principal arm of service to vocational agriculture, operates with some funding of specific line item appropriation of our state legislature and with other general budget funding. Of the approximately $80,000 in the agricultural education budget, about $27,000 comes from our "vocational teacher training supplement". This is a specific appropriation to teacher training and is in lieu of funding once provided through contract with the state board for vocational education. An additional portion of this budget is earned through the formula approach to expenditures for instruction; each student credit hour of instruction earns for the institution a specific amount. Additional funding has been allocated from extension and public service appropriations to the institution. Although this item was all but eliminated by the Texas legislature for the 1963-65 biennium, causing us some budgetary problems, we were able by special allocation to support the program at almost the same level as in the past.

We enjoy our relationship with the vocational agriculture programs and we hope that the cooperative effort will be continued and strengthened in the years ahead.

PROVIDING SPECIALIZED ASSISTANCE TO VOCATIONAL AGRICULTURE TEACHERS

by
George H. Hurt
Director, Agricultural Education
Texas Education Agency

In discussing the subject assigned, namely, "Providing Specialized Assistance to Vocational Agriculture Teachers," I shall point up three areas that have been in operation in our state for the past several years. First, in-service training for teachers; second, use of resource personnel; and third, use of adult education specialists for farmers and ranchers.

I hope that I shall be able to answer, in some degree, the following questions:

1. In what areas can state staff members provide specialized assistance to teachers?
2. In what areas are technical specialists needed?
3. What is the most effective pattern of staff organization?
4. What are some of the strengths and weaknesses of using specialized technical assistants?
5. What type individual is selected to provide specialized assistance?
6. How does he keep up to date professionally?
7. What is his relationship with Extension Service and Experiment Station?
8. What is his role in in-service education for teachers as contrasted to providing instruction directly?
9. With what groups do the specialists work?
10. How is the program organized, administered, and financed?
11. What is the role of the specialist in curriculum building, and developing instructional materials?
12. If funds were available, what changes or modifications would you make in the specialist program?

Teacher trainers and supervisors were aware of the increasing demand by farmers and ranchers for highly trained specialists to provide scientific and technical information essential to their successful operation of a constantly changing agriculture with increasing scientific developments in all facets of the industry. They also recognized that many teachers did not have adequate training and time to successfully meet the needs of the adult group.

Prior to the appointment of the advisory commission the staff considered methods and procedures that could be incorporated within the framework of state administration that would assist teachers in organizing and conducting education programs to meet the needs of farmers and ranchers.

The staff agreed that three important approaches could be made that would assist teachers in carrying out adult education programs. Namely, adult specialist program, concentrated in-service training for teachers in specialized areas through non-credit short courses, and the accumulation of a list of highly trained specialists employed by business, industry, commerce, and organizations available to teachers as resource personnel in conducting adult education programs.

One of the first steps taken to assist teachers in organizing and conducting educational programs was the employment of a highly trained specialist in farm mechanics by the Agricultural Education Department of the Agricultural and Mechanical College of Texas. This specialist devoted full time conducting farm mechanics short courses for teachers of vocational agriculture. The efficiency of farm mechanics training increased rapidly as a result of the work of this man. Power companies cooperated with development of teaching aids and conducted short courses in electricity.

The resource personnel bulletin was published and placed in the hands of every vocational agriculture teacher in Texas. The number of adult programs and enrollment began to increase immediately. The growth has continued each year. The use of resource people has proven very popular with farmers and ranchers throughout the state. Teachers are more confident in organizing and conducting adult education programs today than any time during my tenure in the program.

In 1957 survey forms were sent to farmers, ranchers, vocational agriculture teachers, farm organizations, livestock associations, poultry associations, and others to determine areas of agriculture that had the greatest need for adult education specialists. Data from survey assisted in placing priority on the need of specialists in areas of farming and ranching. The data had been completed before final approval was granted for the establishment of the Adult Education Specialist Program.

In the Spring of 1955, the 54th Legislature directed the State Board of Education to make a study of adult vocational education in Texas with respect to the need for adult vocational education, how such needs should be financed, and through what agencies of the state such programs should be administered.

In November 1955, the State Board of Education confirmed the appointments of a fifteen-man Advisory Commission on Adult Vocational Education. The membership of the Commission was composed of members representing the Texas Vocational Association, Vocational Agriculture Teachers Association of Texas, Texas Council for Adult Education, Texas Association of School Boards, Texas Association of Public Junior Colleges, Texas Association of Directors and Supervisors of Trade and Industrial Education, Texas Association of School Administrators, Council of College Presidents, and the State Board of Education.

The first meeting of the Advisory Commission was on January 23, 1956, and additional meetings were held in February, March, April, June, and July.

The findings, conclusions, and recommendations of the Advisory Commission were submitted to the Governor by the Chairman of the State Board of Education on December 20, 1956.

The Advisory Commission pointed out that teachers of vocational agriculture employed by local public schools had a dual responsibility for (1) teaching courses for high school boys, including organizing and supervising on-farm programs and (2) organizing and conducting instructional programs for young and adult farmers. The Commission found that many teachers had large programs for high school boys, and had neither the time nor the scope of recent training in technological and scientific farming to be able to organize instructional materials, and to conduct up-to-date young and adult farmer courses concerned with many of the changes that had occurred and are occurring in modern agriculture.

The Commission found that a weakness in the organization of the present program of vocational agriculture was the expectation that the vocational agriculture teacher in a community was in all cases able to conduct the total program, including classes for high school boys and the technical and scientific instruction needed by young and adult farmers. Another weakness found in the present program was that schools had not been provided with assistance in research, and in the development of up-to-date instructional materials needed for courses in technical and scientific farming.

The Advisory Commission on Adult Vocational Education recommended that teachers of vocational agriculture should continue to conduct young and adult farmer programs when their background of experience, training, and available time would permit. It felt that a subject matter specialist employed on the staff of the Vocational Agricultural Education Division of the Texas Education Agency, to develop and coordinate a research and instructional material development program, would improve organization of the program of young and adult farmer education.

The Adult Vocational Education Commission recommended that services be provided through technical agricultural education specialists to conduct itinerant training programs for young and adult farmers. It was recommended that the program be developed gradually and that specialist be employed by The Agricultural and Mechanical College System under contract with the Texas Education Agency. It was pointed out that the instruction by these specialists would not be in duplication or in conflict with the functions of other agricultural agencies and organizations.

The findings, conclusions, and recommendations of the State Advisory Commission on Adult Education were approved by the Commissioner of Education and the State Board of Education. Following the approval of the Commission's report by the State Board of Education, the Commissioner of Education directed the Assistant Commissioner for Vocational Education and the Director of Vocational Agricultural Education to confer with the officials of The Agricultural and Mechanical College of Texas and the Director of the Extension Service to determine whether or not the plans presented would be a duplication or a conflict with instruction carried out by the College and the Extension Service. Immediately following the conference between the Agricultural and Mechanical College officials, Director of Extension Service, and officials of the Texas Education Agency, a contractual agreement was formulated and agreed upon between the Texas Agricultural and Mechanical College and the Texas Education Agency. A copy of the revised agreement which is now in operation will be found in the materials handed to the members who are in attendance.

The contractual agreement specifies that the specialists will be stationed at The Agricultural and Mechanical College of Texas in appropriate subject matter departments. The head of the Department of Agricultural Education of The Agricultural and Mechanical College of Texas coordinates the Adult Specialist Program with respect to the relationship between the College System and the State Department of Education.

The program began March 1, 1958. Specialists in Farm Welding, Farm Electrification, Insect Control, Tractor Maintenance, Dairy Science, and Farm Management were employed during 1958, making a total of six. In 1959, specialists in Farm Welding and Swine Production were added. In 1960, two Beef Production specialists and one Oxy-Acetyline specialist were employed. A Pasture Improvement specialist was added in 1962, making a total of twelve.

Data found in material available for you will verify the healthy growth of the program, and its enthusiastic acceptance by vocational agriculture teachers, supervisors, teacher trainers, business and industry, and last--but most important--young and adult farmers.

The assignment of specialists is planned with supervisory staff, teacher representatives, and coordinator on an annual basis. The coordinator prepares a schedule for specialists for the year which is made available to supervisory staff. The supervisors prepare a list of schools requesting specialists during month the specialist is assigned to his area. The list is sent to coordinator in order that final assignment can be made prior to September of the following year. Assignment of specialists by supervisors is based on priority of need, facilities, and leadership ability of teacher. Applications for use of specialists must be signed by teacher and superintendent of school. Upon receipt of assignment of specialists, the coordinator sends all necessary material to teacher, giving date, place, time, minimum facilities needed, suggestions for organizing course, course outline, picture and biography of specialist, and prepared releases for newspaper, radio, and television. The supervisor and superintendent receive copies of correspondence sent to teacher. In the event an assignment has to be cancelled the teacher notifies supervisor. The supervisor notifies coordinator in time for assignment of specialist to an alternate school.

The teacher has the responsibility of determining areas of specialized education needed most by young and adult farmers of the community. He must be sure they are willing to sacrifice time for such training. When these facts have been determined the teacher makes application for specialists needed.

When specialists have been assigned to a school, the teacher has the responsibility of contacting prospective enrollees. This can be done by letters, postcards, newspaper, radio, television, or personal contact. It has been proven that personal contact is the most successful method used in securing desirable attendance. A letter giving background information on specialist and nature of course is very important following personal contact. The use of newspaper, radio, and television has proven valuable provided the above procedures have been used. The teacher must have available all facilities needed for the course prior to its beginning. The teacher is coordinator of the program and is in full charge throughout the course. He should be in constant attendance throughout the program. He has the responsibility of evaluation, and follow up with farmers on their farms and ranches. The existance of a favorable climate among young and adult farmers lends emphasis to the success of short course programs. This of course is the responsibility of the vocational agriculture teacher.

The specialists conduct three short courses per month, and the fourth week is used in preparation for their next assignment. Specific course outlines are prepared and adjusted to meet anticipated needs for further work.

There is a continuous adjustment of subject matter material as a result of latest data provided by the Research Division of the College. The specialists spend a great deal of time adapting subject matter that is appropriate to the needs of young and adult farmers located in the various areas of the state. Preparation of visual aids, demonstration materials, handout materials, and supplies is a responsibility of the specialists. They are given assistance by the staff of the division they are assigned.

In addition to their regular work, specialists assist with non-credit short courses for vocational agriculture teachers during the summer months. They assist with local, district, area, and state shows and contests where requested by teachers and approved by the coordinator. These activities shall not conflict with short course assignments for young and adult farmers.

The specialists have assisted in curriculum development and the development of subject matter materials for use by teachers in carrying out instructional programs for in-school youth, young and adult farmers. However, they have not been used to the fullest extent. We plan to make use of their professional ability in developing and revising teaching plans and supporting subject matter materials in further development of the program. These men are highly trained in their respective technical fields and can contribute much to the improvement of instruction carried out by teachers.

The specialists present the subject matter, as shown in the course outline found in material available to you, on a step by step basis. It is their responsibility to see that the enrollees are following in order to secure maximum results. Enrollees participate through laboratory and field experience to become proficient in the skills taught.

There is a registration fee for each short course to cover cost of its operation. Fees are collected by the teacher and specialist. These fees are used to pay cost of teaching materials, handout materials, postage, printing, equipment essential for specialists' use, and secretarial help.

The budget for the Adult Specialist Program for the fiscal year 1961-62 may be found in the material presented to you. Total salary for twelve specialists and one secretary amounted to $98,676. Travel in the amount of $28,564.58 was allocated, making a total of $127,240.58 budgeted to the Agricultural and Mechanical College from the Texas Education Agency. Other expenses including secretarial help, equipment, supplies, printing, postage, and other miscellaneous items totalled $13,080. This expense was paid from fees collected.

Supporting data accessible to you verify the favorable influence of the Adult Specialist Program on the total program of vocational agricultural education in Texas.

The rapid growth of the young farmer education program shown on supporting data has come about since the beginning of the specialist program. Intensified in-service training for teachers and the availability of a list of resource personnel have been a contributing factor in the rapid growth of this area of the program.

You will note that adult education programs have increased at a rapid rate during the same period of time. The specialist program of course was a contributing factor, but emphasis through leadership of supervisory and teacher training staff played an important part in the indicated growth.

Participation in in-service education workshops, and adult education short courses taught by specialists increased confidence of teachers to organize and conduct adult education programs in their respective communities. The accumulated list of resource personnel prepared by the staff and made available to teachers had its effect on the growth of adult education program.

A study was made to secure reactions of farmers regarding types of programs most desirable for them to attend. The study revealed that farmers preferred concentrated short courses based upon need at an appropriate time, versus monthly or bi-monthly meetings on annual basis. This caused a change in procedure of operation and technique of presentation. For example, teachers who had been providing programs on a monthly or bi-monthly basis changed to concentrated short courses based on need expressed by farmers of the community. In every case the enrollment increased, and farmers are more interested in the program.

Teachers have become better acquainted with the needs and desires of the farmers of their community, and have accepted as a part of their responsibility, the task of organizing and conducting programs on a continuous basis that will provide scientific information essential to the success of the farmers of the community. Farmers have learned that the vocational agriculture department, through the leadership of the teacher, has something to offer, and in many cases requesting additional assistance through this media. School administrators have recognized the responsibility of the vocational agriculture department to adult farmers, and the advantages to the total school program through increased interest of the taxpayers of the community. This is particularly true in the school districts where young farmer chapters have been organized. In fact, the young farmers of certain communities have requested the teacher to provide leadership necessary in organizing local chapter and conducting educational programs. This has caused change in teacher personnel in a few places. This is to be expected when any area of the program is changed.

We believe there is an improved image of vocational agricultural education in Texas as a result of the emphasis that has been placed on young and adult farmer education through the use of specialists and resource personnel. The support from business, industrial, professional, and civic groups substantiates their belief that vocational agriculture, as a part of the public secondary school system, has the responsibility of providing young and adult farmer education that meets the needs of these groups.

A tremendous amount of time and effort has been put forth in the process of incorporating in-service education for teachers, resource personnel directory, and the adult specialist program. Let me hasten to say that all our effort has not been on the plus side of the ledger in all cases. For example, we have not been able to secure highly trained specialists to provide in-service education programs for teachers when time would permit for such training. We were unable to secure names of all available resource personnel in the state. Some members listed proved to be unsatisfactory. Change of personnel created a problem. At present, the resource personnel bulletin has been revised twice, and we are in the process of revising it for the third time.

Many problems have been encountered in the operation of the Adult Education Specialist Program. Assignment of specialists has been made on a monthly basis by areas. Due to geographic location, and climatic condition, specialists have been assigned to areas at a time of year that proved unsatisfactory for the course taught. Inadequate preparation of teaching materials has posed a problem in isolated cases. Frequent turnover of specialist personnel has caused gaps in the program. This leads to disappointments, and tends to hamper progress. Inclement weather causes cancellations, loss of time, and low enrollment. Unforeseen school and community activities have created problems that seem to be unavoidable. Lack of communication between teacher, area supervisor, and coordinator has caused low enrollment, and late cancellation making it impossible for reassignment of specialist. Sudden illness of specialist has occurred which creates a problem for the teacher. Failure of teacher to contact farmers to insure adequate enrollment. Providing specialists in designated areas that have been requested by teachers. Lack of enthusiastic leadership by area supervisor has occurred to some extent during the tenure of the program. As a result there has been a difference of interest and enthusiasm of teachers in the areas of the state. In a few isolated cases there have been conflicts of meetings called by Extension Service and vocational agriculture. This was due to lack of proper communication, and steps have been taken to eliminate this problem.

We take pride in the progress that has been made in our state in providing scientific technical training that is so essential to the success of farmers and ranchers. On the other hand, we recognize there is much more we need to know, if we are to meet the challenge we face. What we have done is not new and scintilating, but the techniques and procedures are different from those that had been used in the past.

We have not as yet made a broad base study to determine the amount of increased farm efficiency of the farmers that have participated in short courses conducted by specialists, and short courses conducted by teachers using resource personnel. We need research to assist in solving this problem. There has not been enough on-farm follow up of participants. This is due to lack of personnel. Due to lack of personnel, second and third short courses in the same community in a given area of instruction have been very limited. Where this has been done the interest and enrollment far exceeded the first course. The specialist is faced with the problem of preparing the instructional program to meet the needs of all members of the group, since there will be new enrollees along with those that participated in first course.

We believe the present procedures are good but do not believe they are the best. For example, we know by experience that the present procedure of assignment of specialists on a rotating monthly basis by areas is not entirely satisfactory. This is particularly true with the specialists in entomology, beef, swine, pasture, and dairy.

With a total of 1,052 public secondary schools employing 1,168 vocational agriculture teachers, it is obvious that the present specialist staff consisting of twelve members is not large enough to do the job that needs to be done in our state. If funds were available we would double the present staff, employing additional specialists in some of the areas now in operation and adding specialists in new areas. For example, we believe we have a need for specialists in soil and water conservation including irrigation, sheep production, poultry production, fruit and vegetable production, and range management.

We recognize it would be impossible to employ specialists in quantity large enough to conduct all young and adult farmer education programs needed in our state. This has never been our intent. We felt the use of specialists was one way to assist and encourage teachers to carry out their responsibility in this important area. We are convinced this has and is being accomplished. The increased enrollment verifies this statement.

I believe I speak for the entire membership of the supervisory and teacher training staff when I say we are enthusiastic about the progress that has been made, and every effort shall be put forth to provide the training that is needed by farmers and ranchers of Texas.

THE FARM MANAGEMENT BUSINESS APPROACH TO TEACHING AGRICULTURE

by
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and
President, American Vocational Association

Looking back just a little bit, since 1910, except during the depression years, there has been a steady reduction in the farm population of the United States, from somewhere over 30 million in 1910 to somewhat under 20 million in 1960. This is not news to any of us; but what is news to many of us, I am sure, is the wide variation in reactions to this information. Each census release seems to add confusion to chaos. Identical facts, identical figures are used by different individuals to support diametrically opposing conclusions. To some, the decrease in farm population is an evil omen which presages the doom of vocational agriculture and agricultural education, in general. To others, it is a triumph of progress of which we may justly be proud.

In this connection, it is my judgment that the education of farmers is the basic responsibility of all of us in this room, not the total responsibility to be sure, and not the responsibility that should have our exclusive attention, but certainly it is the basic one, without which the rest of it would come down like a house of cards.

I think the President's Panel suggests that about 92 per cent of our resources have been spent on the high school program and the remainder frittered about between the adult and young farmer programs. It reminds me that we have done our adult program the way we pump water for the hogs when we rest at noon. This has bothered me for a long time.

Over the years we have attempted to develop what has come to be known as the farm management business analysis approach. It is very simple. It is adult education in agriculture based on facts from individual farm businesses derived from an analysis of carefully kept and accurate farm accounts. Now, I'll tell you that if you analyze all of the millions of words that are written and spoken about agriculture and the farm problem and run them down, you'll be hard put to find any of them that have an origin on actual facts derived from a farm business record. I used to work for the USDA. I used to help with the Outlook Development Information and the rest of it--the Bureau of Statistics. I know how these figures are developed. They are careful estimates. They are done about as well as they possibly can be done in the absence of specific farm records. But this is quite an absence.

If we are going to teach and if we are going to teach to help farmers increase the efficiency of their farming operations and thereby raise the level of living so they can become accustomed to living like they would like to, it seems to me we had better start at the roots of the thing, which are actual facts about individual farm businesses. Very simply, our program (I say "our program"; it is not necessarily ours) goes on the principle that based it on the needs of farmers. This is axiomatic. We in agricultural education have always said this and, to a degree, we have held to it.

We know farm people need the same basic education as any other group in America, but they need more than this, and it is here that we in agricultural education find our prime function. If we make the assumption, and I think it's a fair one, that farmers are in business to make a profit, we can at once begin to identify specific areas of need and assign educational priorities.

Exactly what are the factors that influence profits in farming? If this is what the farmer is in business for, what are the factors that influence profits? Six of these are rather universally recognized and, of course, you can break them down a lot more, but the important major six are: Price relationships, size of business, rates of production of crops and animals, labor efficiency, domination of enterprises, and capital efficiency or cost control. An understanding of and the ability to manage these factors are essential if a farmer is to achieve the objective of increased efficiency and a higher level of living.

From the needs of farmers we derive the prime objective of adult education in agriculture and we should structure our program of instruction on it. When a farmer reaches the point of decision, he must apply the findings of research, outlook information and price trends, new developments in mechanization, and all the other pertinent information to his individual farming business. Averages, the neighbor's experience, general principles, all must be adjusted and adapted to a situation that is different from any other situation, just as a farmer is different from any other farm operator. Unless we have equipped him for this process we have not brought the learning-teaching process to its culmination.

Without adequate detailed information about his own business, a farmer must make crucial management decisions by guess and by gosh and fly by the seat of his pants. How many farmers know, for example, what are the returns per hour of labor from the various enterprises? How about returns over feed cost of livestock? What does it cost to produce a hundred pounds of pork? Or beef? Or milk? Or to operate tractors or other machinery? Which enterprise yielded the highest net returns? What was his change in net worth? These are the kinds of questions a farmer must answer in planning and operating a modern farm business. The answers come from carefully kept records and accounts which are analyzed and interpreted. This becomes what I call the heart of adult education for farming. It will pump profit-making knowledge into the system. And I don't think there's another way to get it.

In spite of the obvious necessity for basing the adult farm program or educational programs on records, the past shows very little recognition of it. The best estimates available indicate that roughly five per cent of the farm operators in the United States keep and use adequate farm records. Thus, it may be reasoned that in adult education in agriculture and allied fields, we have about 95 per cent of our clientele to serve as yet. I ask you, how is it possible to expect the Great White Father in Washington or even the saving grace of parity to do much toward solving the farm problem unless farmers themselves know more about their own business?

I think it would be fair to say that in our experience this program has been a two-edged sword. It has driven some people out of the business of farming who after three years of farm business analysis realized they were always on the slippery end of the stick and learned of their own lack of management ability or other limitations. They just were not cut out for this business of farming and they realized they had better get into some ag-related or non-ag-related business.

But more important and more commonly, it has assisted farmers to make more money, and I'm not a bit ashamed to have dollar signs in my eyes when talking about education. Unless we do have this point of view, I think we don't belong in vocational education.

It has also had two or three other side effects. The program has solidified support for vocational agriculture in the communities where this program has developed. You have seen, as I have, a number of departmental programs get into trouble. I have never seen a program where there has been a strong adult effort along these lines have any difficulty. It has done a good bit to widen the understanding of what vocational agriculture is among administrators, school boards, bankers, and others whose understanding and support we need and must have. But, basically, it has helped the teachers of agriculture to do a better job easier. I don't know of two better criteria to use in evaluating the worthwhileness of the idea, mind you. We are certain we haven't the approach refined and nailed down to the ultimate at the present time, but we think the idea is sound.

There are a variety of farm management approaches and many of us have gone off on this electronics kick. We got attracted by the fizzwheels, ginneycombs, bright lights, ringing bells, and running things through an IBM computor, and think we're helping improve the teaching of vocational agriculture. This is a shady lane, brother, and we can really get our neck in a noose if we fall for these gimmicks.

The basic, important factor is that a farmer (or his wife or his son) keep his own farm records. These records should be carefully kept on the farm by the farmer, used by the teacher every time he makes an on-farm instructional visit, and monthly summary made right there so that the farmer knows what he is doing. If we have a service that electronics can perform (and I'm sure that we have) it will come at the end of the year when the books are closed for analysis. But I've seen too many programs lured by the siren song of electronics and by the advice and counsel of people who aren't in a position to work as closely with farmers as we are--I mean our teachers now--who fail to recognize the importance of the contact which, at least in the initial three or four years of a farmer's experience in this program, are almost as important as the product.

We find, with the same results I am sure that many of you have had, that this type of orientation to a teaching program has different application to different age groups. It works well with the high school group in teaching them the farm business concept. It works well in developing a basis for partnership (farm family partnership). It works well with the young farmer group as it teaches them to more accurately appraise a farm business, and when I say young farmers I am not talking about a fellow who is already on a farm, I'm talking about a clear void in our total program. You normally, and you tell me if you do it differently, finish them through high school. That is the high school program. (Still called by the archaics who make out the report we have to submit, the all-day program. We do not have

them all day. By the same reasoning, we could call the adults the all-night program. This is the high school program.) Then we find them on a farm over here and we call that group the young farmers. Now this is a farce. The young farmer group, if we are going to meet educational needs of these people, are the young men in this stage from graduation who are going through the process of finding a farm and becoming established on it. When they are established on it and are managing and operating a farm business, they belong in a management type program; but it works well with this group. They need this type of information; they need the benefits of the experiences of others in order that they may more accurately assess not only the farm business that they are looking at and helping them to find a profit in it, but also their qualifications and their potential to manage this type of operation.

The question was raised about service when I first started getting excited about this program. The general approach of one of our revered farm organizations (which organization incidentally was trying to boost its membership by providing this service to anybody who joined the organization--they were going to do it electronically) was service. They were so worried about vocational agriculture getting into this type of program they said this was service and should not be a part of our program. We should be teaching and not providing service. We had a meeting with some of the leaders of the organization and they were asked to identify what our job of teaching was. They agreed, of course, finally, that our job was to provide experiences for farmers that would help them make more money, run a better farm business, and become better citizens. On that basis they had to finally agree that this was not a service operation in the least, but really the essence and origin of some of the finest vocational teaching that you could develop.

A similar question has also been raised by some of the people in the small towns who make their Christmas money by swindling farmers out of twenty bucks for filling out their income tax. Nine times out of ten they don't know half as much about it as the farmer himself if he would just give it a little time, but he has been frightened about it. Under this program the farmer has his farm account books and we've attached what we call an FM-7 (Farm Management 7) sheet which is approved by the Internal Revenue Service. It takes the information right out of the farm account book and the farmer has his income tax figured out with a minimum of blood, sweat, and tears. We have a University short course every year, a very effective farm income tax short course. A lot of the teachers come in for it and have found it helpful.

Nine times out of ten (I'm about to say 9½ times out of 10), it has reduced the farmer's tax liability because we find invariably that a farmer knows a lot more about his receipts than he does about his expenses and by keeping a careful set of accounts he has a record of all of them. I used to have a farm before a bunch of rich guys bought it for a golf course, and I found the first year we reduced our income tax by $105 or $106 on items of expense, all of them less than a dollar apiece. Fifty cents worth of nails or something like that--items we hadn't bothered to keep track of--so is this a service or is this educational?

In December of every year, with the farmers enrolled in this program we run a trial income tax balance to see whether they should buy the next year's fertilizer now in order to reduce their tax liability or sell the hogs now because next year they are going to have a different situation. This, I think, is an educational part of the program, to teach the farmer to manage his business so he makes more money. He has got to know how to operate it with a minimum of charges and costs of all kinds. But there are other conditions in back of it and we in agricultural education are creatures of habit and are scared of being accused of service orientation. We go out and prune a guy's orchard or castrate his pigs or dock his lambs or cull his chickens and when somebody shakes his service finger at us we get embarrassed. I guess we are subject to the universal law of inertia. Now I've nothing against tradition. It endows certain practices and attitudes with the haloed sanctity of longevity. That is all right with me. Things are often accepted as right and proper for no other reason than that they have been around for a long time. Now these closely allied forces of tradition, habit, and inertia have a beneficial function of insuring a gradual, rather than radical, social change.

On the other side of the question are resistance to new ideas, blind spots in thought and attitude, and the drag of status quo. In vocational education in agriculture the concept of adult education as a minor adjunct of the total program has, I think, become a bad habit. We too often look upon it as an extra chore, as a peripheral activity rather than an integral responsibility. Now, it may be appropriate for us to scrape the moss from our concept of adult education and take a good sharp look at what we're doing in this regard. Periodic evaluation is good for the soul and more pertinent here it may help save us in agricultural education from being relegated to Limbo. The sacred cow tradition is probably due for a shock. But there's a fundamental difficulty in breaking with tradition. We often

find we start in a new direction and plan to put aside our bad habits and we think we've done something, and then we find ourselves back in the old slot.

I think it would be well to mention here that the total adult program as we see its relationship to the farm business analysis approach is something like this: There are three main ingredients in a program of education for people who are on a farm. One is the three-year course in farm management: Farm Management I, II, and III, in sequence. There are definite limitations to enrollment and I is a pre-requisite for II, II is a pre-requisite for III. In Farm Management I the major emphasis, without going into detail, is on how to keep and use the farm account book, learning the techniques of summarizing, making monthly summaries, etc. The second year, with one year of farm business analysis behind us, the major emphasis is on analysis of the farm business in more detail than we were able to do the first year. The third year is devoted primarily to improved farm business organization. There we end the formal class and group meetings and on-farm instructional visits with the group. Yet, our experiences indicate that you can't beat them off with a stick. They keep coming back and want help so we have what we call the Advanced Farm Management group which meets only three or four times a year, instead of 12 to 15 times, and just enough to help them get their analysis information digested and interpreted.

Now, subsidiary to this are two other aspects of adult education. One is the units of instruction in mechanized agriculture, that is, all of the areas of farm mechanics which may be needed. This may be a tractor clinic during Christmas vacation or maybe a series of lessons on rural sanitation, water control, or that well-known favorite of welding. The third main ingredient is a series of units on the important enterprises, soils, crops, and livestock enterprises. These are run on an annual basis and maybe several of them during the year, depending on the size of the staff in the department, the interest and needs of the farmers, but the priority for on-farm instruction goes to those enrolled in the farm management course. This, in general, is how the farm business analysis approach fits into the total adult program.

When you start a program like this you run into some very serious difficulties. The teachers in the field have established patterns and there is resistance to change. They don't feel like they ought to change what they are doing and they look upon this as something new, and not only new but added work, failing to see that this should become a part of the adult program at the expense of some of the other activities that they have been doing in the adult program. It requires a lot of in-service education for teachers, and here we join with our college and the state supervision staff and the Department of Agricultural Economics. We have offered every year for a number of years field courses, summer session courses, workshops out in the field and on campus for teachers in service, and we'll probably continue to do this because the program, of course, keeps growing.

At the pre-service level I think it requires two major points of emphasis. You have got to have one, two, or three, I don't know how many, but in any event, sufficient courses in farm management and farm accounting so that prospective teachers are familiar with and qualified to operate a program like this and are not afraid of it. After all, they are mostly afraid of it because they don't understand it.

It also requires some adjustments in the methods courses. You don't teach methods as methods; you have got to have some good subject matter in there and this becomes a large part of the subject matter involved in the methods of adult education in agriculture. I don't know whether we will change, but at this point we have three courses in special methods: One for the high school, including FFA; one for young farmer education; and one for adult farmer education. Each is separate and distinct. I believe we kid ourselves if we try to run a methods course and call it young and adult farmer education because then you are missing this group that I mentioned earlier who are too big to cry and too little to swear. They are in between. They are out of high school, but they are in the process of becoming established.

This requires a team approach. Unless the state supervision staff, the teacher education staff, and the fellows who are officers, leaders, and members of the teachers association understand the program and are enthusiastic and committed to this type of program, it is going to be tough. They are going to be limited to pilot programs, and it is going to take a lot longer. I do not have to spell out the kinds of activities that are essential. I would just say that supervisory visits that do not include pretty strong reference to a program of this nature are subject to critical review.

We work with other agencies--a lot of them. This has been mentioned earlier today. You have got to have it. We have got to give recognition to these other agencies. At the

local level there are several: Public and private, governmental and quasi-governmental, profit and non-profit. It is a function of an ag department in a rural public school to coordinate all educational sources for maximum benefit to the clientele of these services. It is impossible to conduct an appropriate vocational agriculture program without achieving at least a degree of coordination with these other agencies. The Farm and Home Development program, for example, which is richly endowed with government money and publicity, is not going to be able to do the job alone. It must be coordinated with the vocational agriculture program, else both will be impaired.

Our leaders in the Agricultural Extension Service in Minnesota help us a lot with this farm management program and are the first to say this is the kind of program they aren't structured to run but they would like to help us run it because it also helps their objective.

I will just close by saying that the limiting factor to all of these and to many developments in vocational education in agriculture as I see it, if we are going to shape rather than submit to the future, is the supply of teachers. Since 1946, and George Ekstrom will probably say that prior to that time, it was the same situation in Minnesota--we have never had enough vocational agriculture teachers. At this time of the year there are still vacancies posted on the board and no teachers to take them. I know that a number of other states are in the same situation. We cannot develop a program like this without good pre-service training, without good in-service training, without all these things previously mentioned, but we aren't going any place until we get an increased supply of the same kind of good old hard-nosed vocational agriculture men I know so well around the United States. We need more of them.

PROVIDING INSTRUCTIONAL MATERIALS FOR TEACHERS OF VOCATIONAL AGRICULTURE

by
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The need for instructional materials becomes increasingly important as changes in agriculture take place. If the instructional program in farming is to train for proficiency, certainly it must be at least up-to-date. Continual changes in technology envision the many teaching aids needed. No doubt the Common Market will necessitate the need for added information.

The Illinois Vocational Agriculture Service was started in 1938 and was made a part of the administration of the College of Agriculture directly responsible to the Dean. This plan has continued even though the Vocational Agriculture Service has grown considerably.

The major responsibilities of the Vocational Agriculture Service include:

1. The developing of teaching aids in the various high school subject matter areas.
2. Helping vocational agriculture teachers keep up to date.
3. Serving as a liaison between the College and the teachers of vocational agriculture.

During the past year, over 2600 orders for teaching aids and materials were received from 443 Illinois schools; 222 requests for information on service were received including problems of production and management, diseases, insects and identification of weeds. In addition, 390 orders were from teachers in 28 other states and 9 foreign countries.

Direct help to groups of teachers includes 21 non-credit subject matter courses, generally one day in length, that were taught by Vocational Agriculture Service Staff members during the year. Subjects included were Income Tax, Electric Motors, Selecting Farm Management Teaching Materials.

To serve teachers new materials are developed each year. Last year the list included the preparation and distribution of 15 new and revised subject matter units, 7 publications on soil management and fertilizer use, 2 slidefilms, preparation of 10 new loan kits of laboratory equipment on electrical controls for distribution early in the fall for the 1963-64 school year, distribution of circulars and bulletins of the College of Agriculture, and assistance in judging contest, annual conference and FFA program.

For 5 years the Vocational Agriculture Service has prepared teaching materials for 5 state-wide courses, 2 in farm mechanics, 2 in soils and fertilizers, and the current one in farm management. The average attendance each summer has been 328 teachers.

During the school year just ended, only 6 teachers out of 465 failed to avail themselves of instructional materials from the Vocational Agriculture Service.

The instructional materials made available to the teachers of vocational agriculture in Illinois have made and continue to make an important contribution to the development of an up-to-date quality program.

The Vocational Agriculture Service is flexible and readily adjusts itself to the needs in agricultural education. It meets regularly as a part of the Joint Staff in Agricultural Education to keep abreast of the program. In addition, opportunity is provided for coordination.

Reappraisal of instructional materials is continuous at the state level through the joint staff, the state office, and the advisory group from the teachers for Vocational Agriculture Service.

If there is to be a professional moving program in agricultural education, appropriate instructional materials are essential. Otherwise, the program tends to become spotty with only a few keeping up to date and for many it is easier to get into a rut.

A positive continuously developing and unfolding state policy involving instructional materials for teachers of vocational agriculture will assist greatly in providing quality instruction.

IMPROVING POST-HIGH-SCHOOL EDUCATION IN AGRICULTURE

by
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I

Perhaps I can set the stage for the discussion of my assigned subject by sharing with you experiences I have had during the past eleven months, first as a special consultant in vocational education in the North Carolina Department of Public Instruction and later as a member of a team from the Agricultural Policy Institute, North Carolina State College, studying economic growth in the South with a grant from the Twentieth Century Fund.

I have had an opportunity to visit 18 post-high-school institutions with programs of vocational-technical education in eight states: Florida, Georgia, South Carolina, North Carolina, Virginia, Tennessee, Arkansas, and Kentucky. I shall spend much of my time telling you about these institutions, hoping that you will catch some of my feeling that here is a vital and rapidly developing movement in which we in agricultural education have, as yet, little shared.

The institutions visited have included community colleges, state and area vocational schools, and technical institutes. Generally, they have been established without any thought of providing agricultural education in them. Yet these are institutions of tremendous significance. When they are established everywhere, as they are almost sure to be, they will change the whole nature of American public education from the kindergarten through the college.

We can't afford to be left out of this movement. I shall suggest a strategy for getting involved in it and indicate what it would mean to us to become involved. It will be difficult to carry out the strategy; we have too long been asleep at the switch.

II

What are the motives and forces behind the establishment of these new post-high-school institutions?

The primary motive in the South has been to use them to promote economic growth, pictured as primarily industrial growth through the attraction of new industries, which are increasingly demanding arrangements for the vocational-techincal education of their employees and prospective employees. This approach could be easily overdone. Employment in manufacturing in the United States is declining. The South has been successful in competing for such industry as there is, at the expense of other regions. But only 21.3 per cent of those employed in 13 southern states are employed in manufacturing; 78.7 per cent are in other occupations.

A second and urgent reason for establishing these schools has been the desire to provide, economically and appropriately, for greatly increasing numbers of high school graduates who want further training. It would take a vast amount of public money to care for these people in four-year colleges. The costs to the students would be much higher than in commuting institutions. The high dropout rate in southern colleges indicates that the four-year institutions do not provide very well for many who are already entering them and would provide less well for the hordes why may enter them during the next few years. Many believe, as I do, that the colleges are not going to provide appropriate vocational-technical education. It would ruin them for their present purposes if they tried. A former Provost of the University of Illinois, Dr. Gordon Ray, has summed up the situation in saying, "The future of the University of Illinois depends upon the provision of appropriate education for those who do not belong in the University of Illinois."

An increasing number of southern communities have been clamoring for four-year colleges and universities with Chamber of Commerce backing, but most states have created the machinery whereby they can limit the number of these institutions lest all of them be ruined. When a community finds that it cannot get a four-year college, it is often willing to settle

for a community college or a vocational-technical school. In Tennessee, at least 50 delegations have appeared at the State Capitol to ask for one of the 23 vocational and technical schools this year's legislature has authorized. It is assumed in Tennessee that only about six per cent of those who enter the first grade will be graduated from college, leaving 94 per cent of the population to be served after high school age by these new schools.

There are many specialized abilities needed in our complex, technological society for which no institution is now providing adequate training. Once a post-high-school institution has been established, all sorts of possibilities develop, not merely for industrial education but for education for distributive and office occupations, agricultural occupations, health occupations, public service occupations, food services, and care of children and the aged. It is also discovered that we have grossly underestimated the readiness of adults for education and find them wanting not only vocational education but general education. Institutions that were conceived to train youth for entry into a limited number of industrial occupations develop as institutions primarily for adults, used mainly after 4 p.m.

We have been leaving to the high schools more than they can do in vocational-technical education. Sixty years after introducing vocational education into the high school, many high schools have no programs of vocational education worthy the name and the others, with few exceptions, offer only limited training for a few of the occupations. As state-wide systems of area schools offering vocational-technical education develop, the local schools may begin to do what they can do. What they can and should provide are:

1. Sound, thorough, basic education, requisite for any good program of vocational-technical education and required for many other reasons;

2. Vocational and educational counseling needed from the first grade through the twelfth grade, the specialized counselors and all members of the professional staff cooperating;

3. A comprehensive program of practical arts education embracing industrial arts, agriculture, home economics, and business.

4. An introduction to clusters of occupations in programs properly labeled "vocational" with the expectation that specialized training for particular occupations will follow in the area schools.

5. A considerable amount of specialized and functional vocational education in agriculture, homemaking, and office occupations for those who will enter occupations in these fields when they leave the high school.

6. The adult education that can best be provided from a local base.

The area schools should be organized to assist the local schools in performing many of these functions.

We are reverting to the original concept of vocational education: education that leads to useful employment. In Florida, they refer to vocational education as "employment-related education," an excellent term. The current demand is for education that leads to employment in fields related to the training given. Some of the vocational schools are setting excellent records in this respect. The school at Danville, Virginia, has placed, over the years, 92 per cent of its graduates in occupations related to their training, although some of the 8 per cent unplaced are women who marry. In 1961, 83 per cent of the graduates of Connecticut's vocational schools and 85 per cent of the graduates of New Jersey's vocational schools were placed in occupations related to their training. Our record in vocational agriculture is bad. Nationally, 70 per cent of our graduates and former students are employed outside farming and 60 per cent are employed outside agriculture. We could improve this record materially by recognizing that high school education in agriculture may be either vocational or non-vocational and putting into vocational courses those most likely to go into occupations closely related to their training, but a far better placement record can be achieved with older students in area schools. We can expect no diminution of the emphasis upon relating training to employment. Our poor record in agricultural education in this respect is the worst and most effective criticism that is being leveled against us. The immaturity and vocational uncertainty of high school youth operate against the establishment of a good record as long as our program is mainly one for them.

Any one of these reasons for establishing area schools is a formidable one. Taken together, they justify my conclusion that we are going to have these schools everywhere.

III

I shall now try to get specific about the scope and the nature of the development of post-high-school institutions in eight southern states.

We should recognize, first of all, that there is a stronger commitment to vocational education in the South than there is, for instance, in the Middle West. Every one of 13 southern states, in spite of the relative poverty of the region, is spending more per capita from local and state funds for the nationally aided program of vocational education than the average for the United States. The expenditure per capita in Louisiana in 1960 was $2.66, in Illinois $.91. The value of vocational-technical education in the transition the South is undergoing is emphasized by almost every southern governor. (Southern governors seem to be the principal leaders in the improvement of education.) It is valuable in the South's transition from an agrarian to an urban society and in providing increasing opportunities for Negroes and keeping them from being a drain upon the southern economy.

Every southern state is doing something important about vocational-technical education. Every state is going in a different direction as it does so. My illusions about the "solid South" have vanished.

Florida is undertaking to place a public junior college within commuting distance of its entire population. Seventy-one per cent will be served in 1963-64. The nature of a junior college is defined by law. It offers a program of general education parallel to that of the first and second years of a four-year college; it offers "terminal" courses vocational and technical in nature; and it provides a comprehensive program of education for adults. There are 17 junior college areas with 17 white or integrated institutions and 12 Negro institutions. Fifty-two per cent of the college freshmen and a third of the college students in the state were in public junior colleges in 1962-63. The total enrollment in the fall of 1962 was 38,000. At the local level these schools are under county boards of education; at the state level they are under the State Board of Education. In 1961-62 about $9 million was spent on these colleges, the state contributing almost three-fourths of it. The buildings on the new Dade County Junior College campus at Miami will cost $15 million. About half of the junior colleges have fairly comprehensive vocational-technical programs. The others are expected to develop them. Agriculture is to be introduced into one school each year during the coming decade.

Georgia has two long-established state vocational schools that are well regarded. Georgia Tech operates a technical institute at Marietta. The state is now developing a system of 27 area vocational-technical schools, 22 of them for whites and 5 for Negroes. The state is currently providing about $2 million annually for buildings and $1 3/4 million for operating expenses in the area schools. The state shares 50-50 with an area in providing buildings, equipment, and operating costs. The site is furnished locally.

South Carolina has a dual system of vocational education. The "old-line" program is under the State Department of Education. A new system of "technical institutes" is under the State Commission for Technical Education. Nine technical institutes will be in operation by the fall of 1964; only one operated during 1962-63. The entire system will include 12 institutes. The state is putting up about $1 million a year for these schools. Buildings are financed locally. The state provides teachers and equipment and about 90 per cent of other operating costs. There are state vocational schools for whites and Negroes at West Columbia and Denmark that have long been operating successfully.

North Carolina is completing its system of 20 industrial education centers, 17 of them in operation in 1962-63, and is combining them with three public junior colleges under a new charter for higher education adopted by the 1963 General Assembly. The institutions for education beyond the high school that are envisioned are much like those Florida and California are developing. Seven of these centers had programs in agricultural technology in 1962-63 and 12 will have these programs in 1963-64. The program is well financed; $3.5 million in additional funds for it were voted by the 1963 General Assembly, bringing the total biennial appropriation to $7 million.

Virginia has nine state-aided vocational schools. The University of Virginia and Virginia Polytechnic Institute have several two-year branches, some of which are developing into independent community colleges. The first of these branches was established in 1946.

Districts operating vocational schools provide the buildings and a part of the equipment; the state pays two-thirds of the instructional costs. Student fees pay other operating costs and about a third of the instructional costs.

Tennessee's current legislature has provided $5 million for a system of schools which will at first include three regional technical institutes and 20 area vocational schools. Plans for organizing and conducting these schools are not yet official. Comprehensive programs will eventually be provided, but initially the schools will be concerned almost entirely with industrial education. These schools may be operated by the state or under contract with an institution of higher education, a local board of education, or some other public body.

Arkansas initiated its state system of vocational-technical schools in 1957. The first of these was opened at Pine Bluff in 1959. The second will be opened at Morrilton in the fall of 1963. Funds have been voted for two more schools. A system of ten schools is contemplated. There must be one school in each of six congressional districts before other schools are authorized. Buildings for each of these schools will cost about $500,000. The state appropriation for operating each of the two existing schools in 1963-64 is about $250,000. The schools are operated and controlled completely by the state. There has not been a dissenting vote in the Arkansas House or Senate in six years in appropriating funds for these schools.

Kentucky has ten state-operated vocational schools. The first two were established in 1938. Seven of the 10 schools were first conducted by city or county boards of education but were brought under state control in 1962. There are still three locally operated vocational schools at Lexington, Owensboro, and Paducah. Trade and industrial education in the high schools is being replaced by extension centers for 11th and 12th grade students operated cooperatively by the area vocational schools and the local school systems. It is estimated that 16 extension centers could serve all of the students of all of the 206 high schools in the state. Although the system of extension centers is not fully developed, 40 per cent of those enrolled in the state system of vocational schools are high school students. During the last biennium $4 million of state and federal funds were spent for the construction of vocational schools. Kentucky has spent three times its state allotment for the Manpower Development and Training Program, much of it through the area schools.

Let us take a closer look at some of these institutions, recognizing that many of them are young and none has developed its full possibilities.

St. Petersburg Junior College, the oldest of these institutions in Florida, established in 1927, enrolls 3,200 day students and 1,900 evening students in a county which last year had 1,200 enrolled in its Negro junior college and an adult enrollment through its public school system of 19,000. The institution has long emphasized vocational and technical education and there is strong administrative and board support for this kind of program, but some of the industrialists in the area have not considered its efforts adequate and a separate technical institute is being built.

Brevard Junior College, at Cocoa in the Cape Canaveral area, in its third years, is operating according to a very comprehensive concept. All vocational, technical, and adult education in the county is under a director at the Junior College and good coordination of the high school and junior college programs is achieved. In 1962-63 the junior college enrolled 2,400, two-thirds of them part-time students. Vocational courses are being provided for all occupational groups and for preliminary training and retraining as needs develop.

The Daytona Beach Junior College has absorbed an old vocational school. There are now 27 members of the staff in vocational education and five in technical education. Almost every type of vocational education is provided.

Crossing into Georgia, one learns that what Florida is doing in vocational-technical education cannot be done in a junior college, but must be done in a separate vocational school. One of the reasons given is that vocational education will not be supported by junior college administrators, although four of the five directors of vocational-technical education in the Florida junior colleges visited said that they were getting all of the administrative support they could ask.

Virginia is having difficulties in developing technical institutes as branches of higher institutions. Two of them, once affiliated with William and Mary College, have already grown into independent four-year institutions. There is rivalry between the

University of Virginia and VPI over sites for new branches. There is complaint of too much institutional domination and too little local participation in decisions. Other reasons lead the person possibly best informed about the situation to say that branches will probably be abandoned and independent institutions created. The branch of VPI at Danville, which was visited, offers now only the courses offered during the first two years at the parent institution and has the same entrance requirements. However, it is adjacent to an area vocational school, so that most students can be accommodated in one institution or the other.

The area technical institute at Greenville, S. C., the first of these institutions to be put in operation, in the fall of 1962, has a building costing $550,000 and equipment worth $1.5 million. There is a 20 acre campus. It offers programs in textile technology, data processing, tool and die technology, chemical laboratory technology, technical drafting and design, electronic technology, civil technology, mechanical technology, air conditioning and refrigeration technology, and transportation maintenance technology, and prepares technical secretaries. There are also several kinds of trade courses. The experience of this institution may indicate the direction these institutions will take. Beginning as a purely technical school, highly selective of its students, it rejected four of five applicants. Dissatisfaction arose and the program was broadened to include trade courses. Now about 2 out of 5 are accepted for technical courses and 3 out of 5 are accepted for trade courses, but there is still dissatisfaction that many are unserved by the school.

The Coosa Valley Vocational Technical School at Rome, Georgia, is a good example of an area school. It provides programs in electrical, electronic, and mechanical technology, air conditioning and heating, appliance repair, automotive mechanics, practical nursing, and business, and prepares machinists. The initial cost of building and equipment was $600,000. The equipment for electronics alone is now valued at $192,000.

The Mayo Vocational Technical School at Paintsville, Kentucky, is a unique institution in that it trains students primarily for export to other parts of the country. Ohio and Michigan are among the principal beneficiaries. Forty per cent of the people of the area are on relief because of the decline in the area's principal industries: coal mining, lumbering, and farming. Ninety-five per cent of the graduates are placed in occupations related to their training. Graduates in electronics receive starting salaries of $6,000 or more, tool and die makers average $8,000. There is training for 17 occupations. Five extension centers are operated, primarily for high school students. In April, 1963, the school enrolled 476 high school students, 472 full-time students in trade and technical programs, and 200 evening school students. A dormitory houses 80 students. The annual budget is $500,000. Equipment is worth $1 million.

The "technical institute" at Danville, Virginia, operated by the local district and the state, is basically a vocational school with an excellent reputation as such. Of its 330 full-time students in 1962-63, only 65 came from the Danville area; 145 are from Virginia but outside the Danville area; 65 are from North Carolina; and the others came from Florida, Maryland, Missouri, New Jersey, Ohio, South Carolina, and West Virginia. There is a very close relationship with employers, wherever in the country they may be located. There is an extensive adult program; one of the principal parts of it is conducted in cooperation with the Dan River Mills, the leading local industry. Last year 80 classes were conducted for mill employees. There is a heavy emphasis in this institution upon programs in radio and TV. However, there are programs in air conditioning and refrigeration, auto mechanics, body and fender, business, secretarial science, cosmetology, distribution, drafting and design, electronics, machine shop, practical nursing, and printing. The last of these was introduced at the request of the Virginia Press Association and is the only program of its type in the state.

Kirkman Vocational High School and Technical Institute at Chattanooga, Tennessee, has three blocks of three-story buildings. This has been a "boot-straps" operation built to its present estate during the past 25 years with a minimum of funds. What is there, I was told, has been made possible by advisory committees. Now the technical institute is being taken over as the first of the state-operated regional technical institutes. The vocational school may become an area vocational school that is a part of the state system. One of the interesting programs here is one for training dental assistants, aided by the U. S. Public Health Service as a pilot project.

The State Vocational School at Clarkesville, Georgia, was founded during Dr. Mobley's regime as State Director of Vocational Education. It offers programs in fabrics maintenance and management, drafting, shoe repair, watch repair, machine shop, electronics, and medical laboratory work. About 1,000 day students and 200 evening students are enrolled annually.

The two state vocational schools in South Carolina, for whites and Negroes, have a total budget of $600,000. About 350 full-time students are enrolled each year in each school. Including the part-time and evening students, the two schools enroll about 1,500 each year. Training for 11 trades is provided in these schools. There is a good outlet for graduates.

During the four years the vocational-technical school at Pine Bluff, Arkansas, has operated, it has enrolled 1,735 full-time, day students and 2,862 in extension courses. Seven trade programs and nine technical programs are offered for day students. There is a professional staff of 24 persons. During the past four years 155 extension classes have been held in 35 cities. Full-time students come from many parts of the state.

The North Carolina industrial education centers enrolled more than 23,000 in 1961-62, an enrollment exceeding that of the three state higher institutions: the University of North Carolina, North Carolina State College, and the Women's College. The oldest of these institutions is in its fourth year.

You will be especially interested in the centers which teach agriculture. The oldest of these programs, at Goldsboro, has just completed its second year. The brief and limited experience in North Carolina indicates that the first years of a program in agricultural technology in an area school are not easy. The greatest successes of the seven centers with agricultural programs have been in providing specialized instructors for adult farmer classes of a type not hitherto available. These classes are organized by local teachers of vocational agriculture. Another effort that has been relatively successful has been in providing short courses for certain kinds of non-farm agricultural workers: nursery men, milk-wagon drivers, small engine repairmen, and others. The least successful part of the program thus far, and the part on which most effort has been spent, has been that for full-time students designed to prepare for work in the farm implement business, other forms of agricultural business, and the poultry industry.

IV

There are many issues to be met and many dangers and difficulties to be faced in organizing and conducting these post-high-school institutions. I have indicated that each state is going in a different direction, often because this is the only direction in which it can go. We can expect that there will be marked changes in these institutions and a trend toward more uniformity as they develop. I want to mention some of the hazards and some of the mistakes that have been made in organizing these early programs.

A good deal of splintering of public education is going on, with vocational education separated from general education and even two systems of vocational education in one state.

Most of these institutions provide for only a part of the clientele and a part of the occupations that should eventually be served.

Some of these schools are linked to the local school systems or to institutions for higher education when they should probably be independent of, but related to, both.

Many of the so-called "area schools" are under local boards of education and some are under auspices entirely outside the regular system of public education. Services beyond the lines of the sponsoring school district are usually not as good as they are within the district.

An excessive amount of state domination may be practiced.

In some cases, there is excessive domination by and undue catering to certain local industries.

The best relationships to the local school systems have not yet been worked out completely anywhere.

Several states have failed to integrate these new schools as North Carolina has.

V

How can agricultural education be fitted into these schools?

Rightly conceived, they would, of course, include it. The state departments of education, state professional organizations, and lay groups interested in the schools have a responsibility for seeing that these institutions are comprehensive, not highly specialized or adapted to the needs of only limited groups.

There are many occupations in which knowledge of some phases of agriculture is desirable or essential. Many of these are classed as industrial or distributive occupations. Let us not engage in jurisdictional disputes. We should be willing to teach agriculture in service courses. We should not insist that all students in agriculture be "our" students. We should use courses others offer in training our major students. We have a real opportunity to develop coordination of the various vocational services, which has long been needed, in these schools. We are not, as yet, moving very rapidly toward it. The schools that are being established are often under the control of industrial educators. Agriculture and other vocational fields are being "included out" of them intentionally.

We in agricultural education will not succeed in penetrating these schools if we keep to ourselves and insist on going it alone. By working with others, we can find our place in them.

We should recognize that the new area schools offer, not merely opportunity for training in non-farm occupations requiring some knowledge of agriculture, but opportunity to provide farmer training of a type we have not often been able to provide. Here we have institutions that are primarily for adults with funds, personnel, and facilities to provide adult education. They are institutions popular with the state legislatures. It is easier to get funds for adult education for them than to get these funds for use through the local public schools. Once these funds have been secured, they can be used in cooperation with the local schools in providing classes wherever they are most convenient to agricultural people. Specialized instructors can be employed to supplement the efforts of the local teachers of agriculture in teaching adults. We have, at last, an opportunity to provide the extended and intensive adult farmer education the times demand, replacing the superficial programs we have necessarily provided under the arrangements we have had.

VI

What should be our strategy for introducing agricultural education into area schools and community colleges?

First of all, we should get into these schools, find out what they are like, become acquainted with their leadership, and point out to their directors and their boards the place agricultural education might have in them.

We should continue and consolidate our studies of the needs for agricultural education of persons in many occupations and the enrollments that could be expected if programs in agriculture were offered. The recent conference of persons from 14 states at the National Center must have been very helpful in moving us in this direction. The study now underway at Ohio State in which the needs for agricultural education of a sampling of the total population are being determined is a most imaginative one, whose findings all of us will await with great interest.

We should work with our traditional clientele, the farm people, to alert them to the significance of these new systems of schools and their possible usefulness to those engaged in agriculture, warning them that they may be of little direct use to agricultural people unless there is insistence that they must be of use.

One of my discoveries this year has been the U. S. Bureau of Employment Security and its state divisions. I visit each of these state divisions. They are working with the schools to an extent I had never known in the North, and this has been going on for years in many states in the South. They can tell us a great deal about employment in agricultural occupations; last year the Virginia Employment Commission placed 40,000 people in farm work alone. Their testing and counseling services are available to high school seniors, dropouts, and persons considering enrollment in post-high-school programs of vocational-technical education. They are most useful in recruiting students adapted to the particular programs we might offer, in placement of graduates of area schools, and in suggesting what the area schools might offer in view of employment needs.

We should develop pilot programs in area schools and prepare materials for use in them. If we do not have area schools or if agricultural education is not included in them, we can still do pilot work through enlarging the sciences of local agriculture departments, as Minnesota has done so well and South Carolina is planning to do. I shall say much more about pilot programs in my second talk.

We must begin to prepare a few people to organize, administer, and conduct programs of agricultural education in area schools. I have watched the floundering efforts of men who had been among the best local teachers of vocational agriculture in North Carolina when they undertook to administer programs of agricultural technology in area schools. They need help and they know it. They should have had some special training before they undertook their present responsibilities. Most states cannot yet provide it. This is another project for the National Center.

We must become associated with the state groups that are originating, planning, and developing area schools. We should become well acquainted with the members of our state boards of education and the legislators interested in area schools.

VII

There is likely to be a lot of new money for vocational-technical education during the next few years and much of it will be used in area schools and community colleges. We could share in this or we could be left out. If we were to share, we could accomplish things we have never accomplished and never shall accomplish with our present setup.

If we do not get into these schools, we shall eventually be in a class by ourselves, for everyone else will be in them, and we shall be helping to put farmers and other agricultural workers into a similarly low class because they will be denied the education beyond the high school that everyone else will be getting.

Our time available for vocational agriculture in the high school is likely to diminish as other groups look more to post-high-school institutions and less to the high schools for specialized vocational education. Our adult programs will become more and more out of place when associated with the high schools as others look to the area schools for adult education unless it is linked with these area schools.

Perhaps we do not realize fully the prestige an effective institution for adult education can attain. This was brought in focus for me when I encountered an old friend, Eugene Youngert, in Miami this spring. Dr. Youngert, formerly superintendent of Oak Park, Illinois, has been associated for the past five years with Dr. Conant. He had been doing a survey of the Miami schools. He reported that, as he went about Dade County, people often thought that he was talking about the Lindsey Hopkins Adult Education Center when he talked about the public schools. This was the institution that was most affecting their lives--and a magnificent institution it has become.

We can expect too that, if we are not in the act, our students will be drained off in large numbers for other vocational programs. There is vast pessimism in many quarters regarding the futures agricultural occupations can provide and we must be on hand to present their legitimate claims.

The forms in which the post-high-school institutions have thus far evolved are not the final forms. We should not assume that we shall be left out of these institutions because we have been left out of most of them thus far. We can find an important place in them. Whether we do, depends largely upon ourselves.

I hope that nothing I have said will be construed to minimize or depreciate what teachers of agriculture, working in the local schools, are doing or can do in adult education. I am only saying that the development of area schools and community colleges is the movement presently offering the most promise for the development of public adult education and that these institutions can help, and not detract from, local efforts in adult education in agriculture. Those of you who know me understand that I have consistently held that we should do locally all that can be done well there. In providing adult education in agriculture we have confronted a task too big for the local schools alone, as a half-century of experience attests.

AGRICULTURAL EDUCATION IN THE COMMUNITY COLLEGES

by
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In the forty-five minutes allotted to me I plan to do three things: (1) to present briefly a broad perspective of education in community colleges on a nationwide basis, (2) to discuss the present status of agricultural education in community colleges with specific reference to the junior colleges in California, and (3) to outline some of the trends which seem to be emerging and to relate these trends to the recommendations and findings of the Panel of Consultants.

We find community colleges called many things and known by many titles. In addition to community or junior colleges, they may be known in some states as state technical schools, area vocational schools, area technical centers, trade technical schools or colleges, vocational technical institutes, city colleges, and many others. Some are publicly supported; some privately. The Directory of the American Association of Junior Colleges lists some 669 institutions of this type in their 1962 directory; 264 privately controlled; 405 publicly supported. We find them located in 48 states, District of Columbia, the Canal Zone, and Puerto Rico. You will pardon me, I hope, if I refer to these schools in the remainder of my presentation as junior or community colleges.

As to the function of these institutions, it is probable that many of them, particularly those privately supported, emphasize the transfer function and provide the first two years or lower division courses common to the curricula of four-year colleges. I could find no data as to the number of two-year institutions which offer occupational training; however, the report of the Panel of Consultants gives an enrollment figure of 350,000 in such courses; and lists 176 institutions receiving federal aid under Title VIII in 1960-61 -- all publicly supported, it is assumed.

While we find significant numbers of publicly supported colleges of this kind in Florida, Illinois, Iowa, Kansas, Mississippi, Michigan, New York, Pennsylvania and Texas, to mention a few; about 20% of them are in California; where there are 74 public junior colleges with a total enrollment of over 300,000 and ranging in size from 250 students to 22,250.

So much for the general picture of the community college nationwide. Let us turn our attention and focus on agricultural education in these institutions. In 1953 Phillips[1] found only 96 two-year community colleges in the nation offering any instruction in agriculture. Since in 87 of these schools this education was reported to be taught with an occupational objective, and in 76 with a transfer objective, it is obvious that many institutions either did not differentiate or offered both types of programs. I have no more recent data nationwide.

It should be much more meaningful in discussing agricultural education in California junior colleges to do so within a framework of the general functions and status of such institutions in this state. In 1945 a liaison committee of the Regents of the University of California and the State Board of Education was established for the coordination of higher education in the state. Ten years later as a result of action by the 1953 legislature, the joint staff of this committee published a report entitled "A Restudy of the Needs of California in Higher Education."[2] This report recommended that the junior colleges of the state concentrate on five important functions or purposes, and these functions have come to be the primary responsibility of the junior college:

1. Technical-vocational education
2. General education
3. Lower-division transfer education
4. Community service education of post-high school grade, within the range agreed upon for the junior college (This, you see, is the comprehensive junior college mentioned by Hamlin.)
5. Guidance

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[1]Phillips, Loren W., "Agricultural Curriculums in the Junior Colleges of the United States," University of California at Los Angeles, 1953.

[2]California State Department of Education, "A Restudy of the Needs of California in Higher Education," California State Department of Education, Sacramento, 1955.

Most of these are self-explanatory. The general education function they had in mind conforms to the commonly accepted definition of this kind of education as being that which will prepare the student to function as a member of his family, as a citizen of his community, state, nation, etc. The community service education was to be designed to meet the needs of all people in the region served, to include both occupational and general education; and to be offered in both regular day and adult evening schools. It seems significant that the technical-vocational objective was listed first. The guidance function also emphasized the responsibility of these colleges to "help each student to help himself in the choice of an occupation and to prepare for the successful pursuit of such work."

The Education Code of the State defines the responsibilities of the junior colleges specifically as lower division pre-transfer education; vocational and technical education; community service and adult education.

The place of these institutions in the broad scheme of higher education in California has more recently been reiterated in the so-called Master Plan for Higher Education, which limits the University to serving the upper 12½, scholastically of high school graduates in the state; the 12 state colleges to the upper 33⅓; but says to the junior colleges, you will serve any and all high school graduates. As one junior college administrator recently remarked, "We serve the top 100%."

So with a legal responsibility to serve all high school graduates, and a primary responsibility for vocational-technical preparation, it is not surprising to find strong programs of occupational education in most of these 74 institutions. Several are in effect, if not in name, vocational-technical institutes. For several years industrial education particularly and business education to perhaps a lesser extent have really expanded programs at this level.

These schools are supported and governed in much the same way as our high schools. They are governed by local boards of education, serve a junior college district, are supported primarily by local taxes, but receive an apportionment from the state per student, slightly higher than the high schools. By July 1, 1964, every high school district in the state must be a part of a junior college district. Therefore, theoretically, by that date every high school graduate in the state will be served by a junior college.

With this general information as a backdrop, let us turn to agricultural education in these schools. First, the extent and scope of these programs. In 1961-62 there were 19 junior colleges offering instruction in agriculture with a total enrollment of 1,762 students. This represents 30% of the total enrollment in colleges of agriculture in the state. These figures include, of course, both vocational and college transfer enrollments. Enrollments in these institutions have increased by 500 students or about 40% in the last four years. It is most difficult to determine how many of these students are transfer bound and how many are studying with an occupational objective. Department heads of junior college agriculture departments have a rule of thumb which states, "75% of our students come to us with a transfer objective; about 25% actually transfer."

These departments vary in size from a one-teacher, newly established one with an enrollment of 15, to multiple teacher operations with enrollments approaching 400--actually 358 this year. They also vary in their local administration. In some junior colleges, the person who heads the Department of Agriculture has the title of Dean, and the institution is entirely separate from any high school. In others, we find the head of the junior college agricultural department acting as a local supervisor of agriculture, and supervising local agriculture departments.

The early agricultural courses and curricula in junior colleges were quite traditional. The transfer courses, in title and description, paralleled similar courses in the College of Agriculture. Considerable difficulty was experienced right from the beginning in distinguishing between vocational courses and those designed for transfer. The problem was especially acute in smaller departments where it was hardly possible to set up parallel courses for each of these two types of students. Attempts were made to differentiate by assigning specific numbers to vocational courses, imitating the university numbering system in which courses numbered from 1 to 49 were classed as lower division, those from 50 to 99 as vocational, and those from 100 to 199 upper division. It is still the usual procedure to number vocational tech courses from 50 to 99.

Until the middle 1950's the primary objective of vocational courses in junior college was preparation for farming, and the emphasis on instruction paralleled, or rather extended, that offered in the high schools. Indeed, as late as 1957 Thompson found 119 of the 263

courses offered to be in the general field of animal husbandry, with the traditional Crop Production, Agricultural Engineering, and Agricultural Economics making up most of the total of the 263 courses listed.

Since 1956, however, a number of changes have occurred in the objectives and courses offered in these schools. Most departments still retain preparation for farming as a major purpose, but preparation for employment in agricultural business and industry, in the specific field of Ornamental Horticulture, and more recently, the training of technicians is strongly supplementing preparation for production agriculture.

This trend is documented by follow-up studies made by the Modesto Junior College, which has one of the largest and most complete agriculture departments in the state. A study which this institution made of the students who were enrolled in agriculture during the period from 1950 to 1955 showed 70% of their former students who were presently employed in agriculture to be in farming and 26% in non-farming agriculture work. In contrast, a study just completed and covering the next 5-year period showed quite a different picture. The comparative percentages for the 10-year period from 1950 to 1961 were 57% in farming, and 43% in non-farming agriculture work. An analysis of these figures further shows that during the last 5-year period the numbers going into farming and those in farm-based occupations to be approximately equal.

Developments in Agricultural Education in these community colleges have not been without problems and difficulties. Among the major ones which have been encountered and which still are troublesome are:

1. Low enrollment. It has been a constant struggle for the heads of these departments to build up enrollments to the place where the staff and facilities necessary to offer real training could be justified. This was particularly true in the early days of their development when most of the 4-year colleges offered 2-year non-degree programs which competed with the local colleges. Recruitment is still one of the major tasks confronting even the larger, more successful departments. In spite of concentrated efforts, only two junior colleges have agriculture enrollments of over 311, and only 5 have enrollments of more than 100.

2. Federal regulations and policies. Since provisions of the National Vocational Acts were written in terms of the high school, it has always been difficult to meet certain standards and requirements for reimbursement, particularly with respect to the time allotted for instruction. Even the present time plans recommended by the U. S. Office do not apply very well to college schedules. Furthermore, the regulation, "less than college grade," continually reared its ugly head. Even though legally, junior colleges are secondary schools and even though reimbursed courses were numbered and designated as vocational, there was nothing to prevent 4-year institutions from recognizing them for transfer, and many were so recognized. As a result, while many of the junior colleges preferred to maintain departments which would meet our reimbursement standards, only a few have persevered and have continued to do so over any extended period of time. At present, 1962-63, only 4 of the approximately 20 agriculture programs in this state receive federal aid.

3. Providing the kind and quality of instruction which meets the needs of students. This, of course, is especially true in the smaller junior colleges with only one or two instructors. With students, some of whom have transfer objectives and others preparing for employment; with the need to offer courses in animal science, plant science, agricultural engineering, agricultural economics, teachers in small departments have little opportunity to specialize, and even more difficulty in keeping their technical knowledge up to date. Furthermore, it is still an open question as to what kind of preparation is most appropriate for the junior college instructor--should he come up through the ranks as a high school teacher, or should his experience and preparation more nearly parallel that of the four-year college instructor?

4. Making instruction available to sparsely settled areas. When junior colleges are established in such areas the total enrollment is so small and costs of establishing and maintaining such institutions so large in proportion to the population, that occupational preparation generally takes

a back seat to transfer courses, at least in new institutions. This seems to be particularly true of agricultural courses.

5. Employers still tend to look to four year colleges for employees in agriculture and are generally unfamiliar with the junior college programs. This is understandable. Many heads of agricultural businesses and agencies were themselves graduates of four year colleges and tend to turn to these institutions for agriculturally trained men. Furthermore, many job descriptions call for a degree when perhaps junior college preparation would be entirely adequate.

In addition to these, there are several other limiting factors. While the state supervisory and teacher training staffs accept responsibility for assisting these institutions, they tend to feel that their first duty is to the high schools. Furthermore they feel more secure in the high school area since it was in this area that they had their teaching experience.

Local pressure and ambitious administrators sometimes have visions of developing these institutions into four year colleges. Indeed most of these two year schools have dropped the "junior" from their names. Fortunately some administrations recognize the unique function which the junior college may serve and as one put it, he "had no ambition to make his institution the Harvard of Central California." Finally, as pointed out in the Panel report, they face considerable competition from many agencies in the field of occupational education--the four year colleges, the high schools, private trade schools, and training programs sponsored by industry.

In spite of these, however, they are moving forward, and some excellent work is being done.

May we now turn to the final phase of this presentation and discuss some of the trends which can be identified, some of the opportunities and challenges which the future may hold for agricultural education at this level.

1. While these schools will continue to offer programs leading to college transfer and to placement in farming, considerably more attention will be given to preparation for those occupations in agriculture which serve farmers and farming--input and output services.

   This trend is already well defined. When five years of experience with agricultural business curricula were reviewed and summarized recently by junior college representatives it was found that four of the original pilot programs had continued to function--some as originally established; others with considerable adjustments, and that other junior colleges had established similar curricula. Briefly, teachers reported that the original concept of a program jointly administered by departments of business and agriculture did not work 100% and that the administration has shifted to agriculture, with students electing courses in business which are appropriate.

   Conceived originally as primarily occupational training for immediate employment, experience has shown many students electing this curriculum for transfer to four year colleges. However, the production courses, which are needed as preparation for business occupations as well as for farming are being taught with somewhat different emphasis with the realization that the students enrolled may have either of these two employment objectives. While the term "agri-business" is useful in emphasizing a distinction between production curricula and those with marketing and service objectives it may not properly describe all non-production curricula. However, the term has been widely accepted and it does describe a major segment of modern agriculture. Perhaps more descriptive terms might be "agricultural services" and "agricultural technology".

2. One major recommendation of the Panel of Consultants relative to vocational and technical education beyond the high school states: "Technical education should be emphasized, improved and expanded by increasing Federal support for programs designed to prepare individuals for useful employment in technical occupations requiring scientific or technical knowledge and skills." While the term "technician" is generally associated with the factory, industry, or engineering, there is already considerable evidence that we have many technicians in agricul-

ture, and steps are already being taken to introduce courses for the training of these persons in junior colleges.

In North Carolina, from information which I recently received, seven Industrial Education Centers have been established in that state, in which courses in agricultural technology have been introduced. The programs thus far available include two-year courses in agricultural equipment technology, agricultural business and poultry services technology, and a one-year course in farm machinery. They anticipate an enrollment of 100-150 students this fall in the four centers where this instruction will be available.

In California, one course for the training of Animal Science technicians has been established and has finished its first year of operation. This is at the Modesto Junior College and is an outgrowth of the study made of "Technicians in Agriculture" by Jerry Halterman of that institution in 1960-61--a study which was supported by NDEA Title VIII funds and with which I assume many of you are familiar. This curriculum is designed primarily to train artificial inseminators, and reports indicate that it has been outstandingly successful. Fifteen students are currently enrolled and they expect 25 next year. The two-year instructional program involves courses in animal science, business administration, along with general courses in English, speech, history, etc.; but the core consists of two new courses designed specifically for these future technicians. The first of these is "Laboratory Techniques and Basic Science," a 3-unit course described as "A terminal course designed to acquaint the student with essential laboratory techniques and basic science principles adequate to qualify him at the technical level for service in agriculture." This course was set up at the request of the agricultural department; was planned, equipped and taught by an interested instructor from the science department of the college. It will be one of the core courses for other technician training programs to be established. The second new course is an advanced breeding and artificial insemination laboratory course where students are given sufficient practice on cows rented for that purpose to qualify with some degree of skill in this operation.

Ready for this fall is another program for the training of technicians in ornamental horticulture. This will have two specializations--one in landscape and parks maintenance; the other in nursery production.

Both of these programs have been planned and organized with the assistance of top-flight advisory committees. Advising on the curriculum for ornamental horticulture is a park superintendent, a private landscape agency owner, a nurseryman, a gold club superintendent, another nurseryman, and a superintendent of landscaping for highways. The instructors responsible for setting up these programs emphasize that the assistance of these advisory groups has been a key factor in whatever success they have enjoyed thus far.

Under investigation at this same college are possible programs for the training of veterinary aids, and for agricultural engineering technicians.

At the Mt. San Antonio College in southern California, the Halterman study and a local study of agri-business occupations made by the head of that department, G. A. Sherman, indicated that there might be a complex of technician-type occupations in the various federal, state, and county agricultural agencies. Therefore, he started a study supported by NDEA funds of these occupations in the area served by that school. This study has just been completed and I have copies of the summary for those of you who may be interested. He found fifty job classifications employing over 400 persons whom he identified as "public service technicians". On the basis of his findings, he has planned three curricula--more general in nature than the Modesto curricula--one each for plant science technicians, animal science technicians, and agricultural engineering technicians. The plant science program is designed primarily for students preparing for agricultural inspection, forestry, and turf grass management; the animal science for livestock, meat and brand inspection, and animal laboratory technician; the agricultural engineering for employment in food processing.

Both Modesto and Mt. San Antonio Colleges have received requests from the Forest Service to establish courses for the training of technician level persons for forestry jobs, so technician training is on its way.

3. While the community service function of these colleges in agriculture has received relatively little attention, whenever instruction has been offered the response has been remarkable. A course in plant diseases offered at Bakersfield College attracted over 100 farmers, pesticide specialists, salesmen and others; a course last fall for nurserymen and soils specialists at another junior college had to limit enrollment to keep class size down to a number commensurate with facilities available.

When it is considered that so called extended day or evening class enrollments overall far exceed the regular day enrollments, there may very well be a great, relatively unexploited service to be rendered by these schools in up-grading persons already employed in agriculture.

Minnesota, as you know, has exploited and developed its opportunities for this type of adult education for farmers.

If we take our cue, therefore, from the report of the Panel of Consultants and redirect and improve vocational and technical education in agriculture beyond the high school; if we provide appropriate curriculums for full-time students who finish high school and can spend an additional two years to improve their occupational proficiency, either as farmers or in agricultural services . . ..

If we can discover those occupations in agriculture in which technicians are needed and establish or expand programs designed to provide the scientific and technical knowledge and skill required in these positions . . ..

If we can forget or reinterpret the limitation of "less than college grade" --and it appears that we can . . ..

If we obtain and train teachers who can and will maintain quality standards in their instruction; keep up to date; maintain their lines of communication with agricultural industry, as the better ones now do . . ..

If we can place and follow up those whom we train in these programs . . ..

Then there appears to be a whole new future for this type of post-high school education in agriculture--a real growing edge.

There appear to be many "ifs"; there probably will be set-backs and frustrations as we move forward in developing these programs. However, if we remain alert to these opportunities, research for basic information, establish pilot programs to try out promising new departures and to implement research findings we should be able to change many of these "ifs" to certainties.

MEETING AGRICULTURAL EDUCATION NEEDS IN URBAN AREAS

by
Jesse A. Taft
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Massachusetts

In Massachusetts our most comprehensive programs in vocational agriculture have been centered in urban areas. I refer to the three special county agricultural schools, all of which are located in the industrial area of the state. It is these special schools with large educational farm laboratories upon which I will center most of my presentation.

Massachusetts is one of the few states to have a special Vocational Act separate and distinct from General Education. We are fortunate to have a broad framework under which to conduct training in agriculture. "Agricultural Education" under this act, passed in 1906, is defined as "vocational education which fits pupils for occupations connected with agriculture, the care of domestic animals, forestry, and other wage-earning or productive work on farm land."

With such a broad base of operations, we have been able to allow certain students to gain work experiences in occupations associated with agriculture without violating the provisions of the Smith-Hughes Act. At least six months of directed practice is received by all students attending one of these county agricultural schools which operate well-equipped farms. Also, because Massachusetts appropriates funds for vocational education (matching as high as 13-1 basis), it has been possible to provide training over the years in agricultural occupations other than farming without the use of restricted Federal funds.

Our agriculture is caught in a metropolitan development that exists from Portland, Maine, to Norfolk, Virginia. This region is becoming more urban yearly. It is this type of climate wherein we find ourselves now engaged in conducting programs of vocational education in agriculture. From the beginning, we have trained boys from urban homes in the county schools, many of whom wish to make a career in estate caretaking or some other non-farm agricultural occupation. Seventy-seven (77) percent of our total state enrollment (1200 all-day students) was classified in 1962 as coming from urban homes. This leaves less than one-quarter of our youth coming from farm homes. The real increase in the number of urban students served began during the World War II years. I well recall visiting one high school department in the fall of 1946. All 38 students in the previous year met the supervised farming requirement through placement for farm work experience. Not a single enterprise had been undertaken. All boys had been placed on farms, some as far away as Vermont and Maine, to satisfy the farm work experience requirement. At this time they started in mid-April and remained in training through September.

This situation opened up my eyes to a trend that was developing due to economic pressures and the increased demand for young agricultural workers. In assuming my new duties as a State Supervisor, I naturally was interested in making a survey of the state to determine the status of the supervised farming programs. As a result, I studied all productivity reports submitted to the Division of Vocational Education from 1930 (the year I began teaching vocational agriculture) through 1946. I found a definite trend of fewer and fewer completions of enterprises and a strong tendency for students to rely on placement training to gain farm work experience.

Being a former disciple of Rufus W. Stimson, the so-called father of the project system, I was dumbfounded to learn that projects were losing favor among both pupils and teachers. Teachers strongly defended the merits of the placement system for training students through farm work experience. I well recall pointing this fact out to our Regional Specialist. At the beginning he did not grasp the situation and could not comprehend such a training program. Today, not only the Regional Specialist, but, I believe that the entire staff of Dr. Tenney's office is convinced of the merits of placement training for supervised farm work experience when facilities at home are limited for student enterprises.

Instead of conducting small two by two projects which have little economic significance, our youth are obtaining a greater breadth of training under successful farmer-employers where they are gaining a more valuable experience in the whole-farm concept. We still retain an early-school-release provision at these schools, permitting students to be be placed as early as April for placement when good farm jobs are available. This is an important factor in favor of placement training for the demand for agricultural workers from April to October exceeds the number of students available.

We do not claim to have perfected the farm placement training system. We are continually making refinements. The use of agreement forms and the placement record book for each student has brought improvements. The ideal plan is to identify the training needed by the student. If the opportunity is available to gain the recommended experiences on the farm selected, a list of jobs and abilities which the student needs to gain experience is entered in the section of the placement book devoted to the training program. Approving farms for placement is getting more attention by eliminating any farm employers who tend to exploit the boy or fail to give the student the work experience previously agreed upon. The earnings of boys on summer placement range from $600 to $1200 per year. This aspect is very appealing to boys, especially to those who have limited facilities or, in many cases, no facilities. Less than ten percent of our total enrollment in the state now conduct enterprises or improvement projects as part of their training. This situation is quite a contrast from the early days when we used to rate departments on the basis of the average number of projects completed per boy. Sometimes I think that the placement training for work experience is just an easy out for the teachers. Nevertheless, it is a situation in which urbanization has tremendously influenced the type of supervised practice program carried out by students in Massachusetts.

Surprising as it might seem, our strongest programs in vocational agriculture are located in our largest urban areas. We are real fortunate in having these three county agricultural schools which serve well these urban areas of the state. These special schools are unique as to their organization, as compared with the general pattern of vocational agriculture administered elsewhere in the state and nation. Established by special and separate legislative acts, as early as 1913, they have become centers for all agricultural activity within the county. The director of each school is responsible for all County Extension Service programs. Not only are the County Extension Offices located at these schools, but S.C.S. and A.S.C. offices are found there as well. The public has come to think of the "Ag School" as the hub of all agricultural training for their respective counties. This type of school has really come into its own to meet the demands of the times by providing the specialized type of training one needs to engage in today's agriculture. One school has been recently renamed Essex County Agricultural and Technical Institute. Two of the three county schools are observing their Fiftieth Anniversary this year. If we had three more such quality county schools located strategically in the state, we could well afford to eliminate all one-teacher departments.

To give you a better understanding of these extensive farm laboratory schools, visualize a modern equipped farm of 200 to 250 acres with a faculty of from 15 to 25 specialists. All schools have limited dormitory facilities. Their operating budgets range between $500,000 and $750,000. Each school offers training in all phases of agriculture common to its county; namely, dairy cattle and general livestock, floriculture, poultry, vegetable crops, ornamental horticulture, landscape gardening, fruit, conservation, and forestry. Division heads in each of these phases of agriculture are responsible for maintaining up-to-date farm educational units in each of these categories. Both academic and related-subject teachers with an agricultural background are employed on a calendar-year basis to round out a schedule which devotes 50 percent to agriculture, 25 percent to related subjects, and 25 percent to academic subjects. Students are allowed to major in a special field of agriculture or horticulture beginning as early as their junior year in school.

Fortunately, the number of off-farm jobs in agriculture has been increasing to offset the decline in the number of farm opportunities for work. In spite of the increased emphasis of specialized training given in horticulture, we cannot meet all requests for trained graduates in such areas as floriculture, landscape gardening, and arboriculture. These jobs are found primarily in urban areas. We find that boys are shifting their interest from dairying and poultry, where jobs in these fields of agriculture are not numerous in urban areas, to the field of horticulture. Consequently, we are expanding these horticultural areas of instruction. This past year we have used George-Barden funds to add a full-time specialist in tree service work (arboriculture) and turf growing (agrostology). This teacher is instructing in the all-day program as well as conducting adult unit courses.

In a recent five-year follow-up of graduates we have discovered for the first time that the number of graduates entering agricultural occupations (non-farm in character) has exceeded the number becoming established in the production phase of agriculture. Twenty-eight (28) percent entered agricultural occupations other than farming. This is the highest percentage noted in comparison with reports from other states. Twenty-five percent were engaged in production farming - one of the lowest figures when compared with reports from other states. We were pleased to note that a total of 74 percent were engaged either in agriculture full-time or part-time, in fields associated with agriculture, or attending institutions of higher learning studying agriculture.

Post-High School Programs

Our Essex Institute, one of the largest day-school vocational agriculture programs in the country, has had three years' experience with a cooperative venture with distributive education - a thirteenth-year level course. This program trains for careers in garden centers, florist shops, agricultural supply firms, and for jobs in supermarkets which require a background and training in agriculture. One D/E approved teacher is employed who teaches salesmanship and merchandising. Vo-ag specialists are used to teach the same class in quality control of various agricultural commodities. The students attend school for five periods daily and are placed for appropriate work experience with pay during afternoons, evenings, and Saturdays. Some firms are requesting their younger employees to take this program while remaining on the payroll.

Two years ago, in a pilot center at another county school, we established an agribusiness course without tying in with D/E. Here, we have used our regular vo-ag teachers. In this program, students are in school full time for six months and placed in approved agricultural establishments for work experience for the other six months of the year, during the period of April to October. Many of these students are former vo-ag graduates who elect the thirteenth year program.

Since the mid-thirties, the Essex School has conducted thirteenth and fourteenth year programs for high school graduates -- mainly for urban boys who have never had previous training in vocational agriculture. Upon graduation, these individuals usually enter agribusiness occupations rather than those in productive phases of agriculture and horticulture. Recently, the school has received authorization from the state legislature to grant associate degrees in science to graduates of the thirteenth and fourteenth level program. Because many of these graduates are interested in state and federal positions in agricultural inspection work, they cannot qualify to take the examination today without at least an associate degree.

Guidance and Recruiting Program

Without a strong guidance and recruiting program we would be severely handicapped in maintaining these 200 to 350 student-size schools located in urban areas. I would like to tell you about the Essex recruiting program which is most unusual but highly successful. The school employs a public relations member on its staff. Together with other teachers as needed, he visits every eighth grade in the county during the winter months. The local school authorities in each town and city have granted permission for our agriculture staff to work through their guidance personnel. Schedules are arranged for one-period talks with each eighth grade. Films of 2 by 2 slides of the school activities are used in addition to FFA leaders. Attractive brochures to describe the school and opportunities in agriculture are distributed.

All students who express an interest in visiting the school are given such an opportunity through scheduled organized tours. Then, all who are interested in applying are given an application card. If the applicant completes and returns the card after talking it over with his folks, he is given further consideration.

The personal data of each applicant are carefully reviewed in consultation with his guidance teacher. If tentatively accepted, he is invited to attend the Essex School during the April vacation week. During half of the school day the students are taught three subjects: English, mathematics, and science by the regular faculty. Keep in mind that the regular Essex students have been placed for farm-work experience during early April, freeing a portion of the faculty for instruction of this group. For the other half day, the students are rotated on a day-to-day basis among the farm divisions for farm work experience as well as for orientation purposes.

The boy may leave at the end of one day, second day, or at the end of his vacation week and return to his home school. Likewise, a boy may attend the Ag School for the entire last quarter of the school year and graduate with his eighth grade class at his home school. This year 179 students were screened from a group of slightly over 300 boys who originally applied. They were permitted to attend the final quarter of the school year at the Ag School. At the end of the quarter further screening takes place, allowing the school to select an entering freshman class of 90 to 100 bona fide students. This aggressive recruitment program was started during World War II. Without such a system of recruiting, this school, located in a highly urban and industrial county, would never maintain an adequate enrollment of top-quality and interested boys. As a result of careful

selection, frequently fifty percent of the Essex graduates pursue higher education in the field of agriculture.

Off-farm Jobs in Urban Areas

In Massachusetts the number of off-farm agricultural workers for which competency in agriculture is essential and highly desirable out-numbers farm workers by 10 to 1. Likewise, the demand for training to prepare for jobs in off-farm agricultural occupations in urban areas far exceeds the demand for training for production farming in strictly rural areas of the state. We are not receiving requests for training of dairymen or poultrymen. Instead, leaders in agribusiness are turning to us for the training of arborists, dairy processing technicians, meat cutters, veterinarian helpers, and turf caretakers.

Training for the Unemployed

When the president of the State Arborists Association informed us of a need for 2,000 additional trained arborists in the state, it became necessary and timely to investigate the situation and arrange for such training. Our surveys have borne out the fact that tree service companies, tree wardens, and park commissioners are desperate in search for trained arborists at a time when there are pockets of unemployment. We have taken steps to meet this need for trained arborists. Presently, we are training our fifth class. Placement of graduates from these ARA and MDTA programs have been most rewarding to the trainees. Teachers have stated that such programs are good for the trainees, good for the teacher, good for the school, and good for the country. We look forward to continuing MDTA programs in centers where they were set up last year. We are presently operating a Food Service training program at Essex with nineteen students which has given every indication that it is off to a good start.

Those of us faced with training students from urban homes for gainful employment in agricultural occupations have been frustrated for too long a period with the restriction imposed by the Smith-Hughes Act, which has limited on-the-job training to the work of the farm. We are now ready and anxious for legislation making it possible to allow supervised work experience in many agricultural occupations other than farming alone. Yet, do not overlook the fact that training in farming is highly advantageous for the farm-reared boy as well as the urban boy who wishes to make a career in some agricultural occupation other than farming. To enhance the training, on-the-job work experience is necessary and should be permitted during the junior and/or senior years. Most programs of training will need to be modified sufficiently to provide the knowledge and skills required of these agricultural occupations. It may be necessary to include personal typewriting, bookkeeping, salesmanship, or marketing.

With over 80 percent of our present enrollment now studying vocational agriculture in multiple-teacher departments, we have found it possible to prepare urban youth for many occupations associated with agriculture. With more freedom to broaden the work experiences combined with an adapted course of study, greater success is predicted for those entering agricultural occupations non-farm in character.

The jobs are there. We are convinced of the need. They are good-paying jobs. Let's fill them with individuals trained in vocational agriculture. Our ability to build on past accomplishments will do much to move us forward in agricultural education and the industry it serves.

SERVING A BROADER SPECTRUM OF AGRICULTURAL OCCUPATIONS

by
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In the first place, I am honored to be here and to have a chance to participate in this workshop. When Dr. Taylor first visited with me about participating in this conference, we talked about my reporting our pilot study at Pigeon conducted during the past year. This I will try to do. In addition, I have brought copies of the report for each of you to read at your leisure.

In this oral report I want to deviate somewhat from the formal report and to talk with you informally about (1) some of the background leading up to our pilot program, (2) some of the factors making such a program possible, (3) some of the observations we have made as the program has moved along through the year, (4) and finally, to suggest some of the explorations we would like to make in the future.

1. The background leading up to our pilot program. We are all aware of the changes that have taken place in farming in the last thirty to forty years. When I was a young man on the farm we devoted approximately 20 per cent of our tillable acres to growing feed for horses. This represented our power supply and the fuel for its operation. Today our fuel is delivered by a tank truck and we purchase our tractors from the dealer who lives in town and (we assume) who knows how to demonstrate the machine and how to help us determine the size of machine to fit our operation. I suppose this is one of the relatively minor revolutions in farming. When we think of all the developments in herbicides, antibiotics, pesticides, fertilizers, plant breeding, management, and all the other fields, it stretches our imagination to even comprehend the changes that have occurred within the lifetime of most of us here.

To keep up with these changes, it has been necessary for us to constantly revise and update our programs for training for farming. The subject matter of even five years ago is no longer suitable for a course in vocational agriculture designed to train farmers. I wonder how many of us as teacher trainers and supervisors really know to what extent teachers in our areas have kept their subject matter up to date.

A second background factor which has contributed to our approach in developing the work in the non-farm agricultural areas is the fact that for a number of years at Michigan State we were teamed up with homemaking, business education, trade and industrial education, and industrial arts education, in one department. This resulted in our working together on committees for development of courses, research projects and other activities. While these activities were not always as fruitful as some of us had hoped, they did give us an insight into the programs and problems of each of the vocational services which has enabled us to continue to cooperate in the design of some of our research projects.

As an example, for a number of years we had a Research Committee made up of staff members representing the different vocational services. Among other activities, this committee sought to stimulate research in the broad area of occupations. As a result, several staff studies and some doctoral dissertations dealing with some aspects of occupations have been completed.

2. Factors making possible the pilot study at Pigeon. The distinction between "background" described above and this section on factors which made possible our pilot study may not be entirely clear. Perhaps a clear-cut distinction is not necessary. We are all aware of the many criticisms that have been leveled at vocational education of all kinds and at agricultural education in particular. At the same time, we have realized the necessity for continuing a strong program of vocational education in the nation. Superintendents of schools are aware of the problem. They read and many times have been told that farming is declining in importance. At the same time they see, in their own communities, the great increase in efficiency of the farms and the growing need of the farm operators for services. As a result, these administrators have been asking, "How can we modify and adapt our vocational programs to meet the needs of our people?"

One experience I had in Michigan about three years ago will illustrate the point. I was asked to conduct a workshop for teachers and others in one section of northern Michigan to try to help these people study the problem of providing adequate vocational education for the area. Teachers from seven or eight counties were enrolled.

The area is one in which farms are rapidly decreasing in number; where forestry and recreation are increasing, and where many young people must leave the community for employment. While some of the publicity was not very flattering, the fact that the request came from the local community indicates a deep concern for providing an adequate education for the young people.

Another factor which led us to the pilot program was the study we made in 1958-59 on "The Need for Training in Non-Farm Agricultural Occupations," and the doctoral dissertation by Kennedy on "Training for Non-Farming Agricultural Occupations." Both of these were reported at the A.V.A. Convention in Chicago. We do not need to review them here except to point out that the study on "Need for Training in Non-Farm Agricultural Occupations," included items that would be normally included in business education, trade and industrial education, social sciences, mathematics, vocational agriculture, and other areas commonly designated as "general education."

The third factor leading to the pilot study was the wholehearted support of the director of vocational education and the chief of the agricultural education section in the Department of Public Instruction, our assistant dean for program development, and the chairman of our agricultural education section at Michigan State. These individuals were all enthusiastic for us to move ahead with another phase of the study of training for non-farm agricultural occupations.

3. Observation of the Pigeon Program. A fairly complete review of the first year of operation of the pilot program at Pigeon is included in the mimeo, "Training for Off-Farm Agricultural Occupations," which is to be distributed to you. However, I would like to briefly review some of the highlights, since they will have a bearing on later discussion and on my reaction to some of the questions Dr. Taylor has suggested might be of interest to you.

In the first place, we had no problem of finding a place for a pilot program. From my discussions with superintendents we would be able to conduct dozens of pilot programs in this field, regardless of reimbursement and in spite of crowded conditions and shortage of staff. These school administrators are very anxious to help in developing programs to meet the present and emerging needs of their people for vocational education.

We are aware of problems of definition of agricultural occupations. Byram has a definition in his book on "Guidance in Agricultural Education." Hoover has a definition in his "Handbook of Agricultural Occupations," and a committee under Hoover's direction presented a definition at the Research Coordination Conference held here at the National Center in May, 1963.

For our work at Pigeon we made no specific attempt at a definition before launching our program. We developed a "work experience" type of program for high school seniors and placed them in businesses and industries in the towns of the school district. A few were placed in cities outside the district boundaries. The students who were placed in businesses directly serving farmers were considered to be specifically in our pilot program. The man who was chosen as coordinator of the program was one of the two teachers of agriculture in the school. He had been a successful teacher of vocational agriculture and had also successfully served as a field man for the Michigan Artificial Breeders Cooperative. In this capacity, he had had some practical experience in the elements of a business serving farmers.

We worked with the coordinator to help him develop with employers a written statement of the duties and responsibilities required of the students in their work assignments. Using this kind of information, he was to prepare a training program which would develop the abilities and understandings appropriate to the job.

We had only a few students we felt should be designated as employed in non-farm agricultural businesses. The number will depend on how far out in the "gray areas" you would be willing to go. We had two boys employed in farm machinery sales and service businesses. These boys certainly needed much of the farm machinery aspects of our farm mechanics program. Perhaps more important is their need for a good understanding of farm management. They also needed competence in such things as "human relations," simple record keeping, and the basic fundamentals of a willingness to stick to a job and "do an honest day's work."

We also had girls working in the offices of certified public accountants. Their work consisted primarily of keeping accounts for farmers and other local businesses and of

preparing farmers' income tax reports. Some of us felt that they needed some understanding of the unique aspects of farm accounting, depreciation, inventories, and the like. On the other hand, there are many business educators who insist that this is not necessary for people working in these areas. I feel we did not completely settle this issue.

We began our training programs at Pigeon with seniors. Since we made no attempt to set up programs for other grade levels, we have no basis for comparison as to the relative effectiveness at different grade levels. In this respect we probably have raised more questions than we answered. For example, we feel that it would be more appropriate for students to complete the high school and then enroll in a training similar to the one we had at Pigeon. However, many of these students needed to "go to work" upon high school graduation, and we soon discovered that to meet their needs we must offer a program at the high school level which would lead to initial employment.

Nationally we are concerned with the drop-out problem. Many of us would like to know if a program like the one at Pigeon would be effective in decreasing drop-outs or if the drop-outs would be more employable if they had had experience in a work training program. Again we raised the question, but failed to get an answer. The employers naturally want the best workers (not necessarily the best students). They do not want the poor workers or those who are not willing to give a real day's work. At the same time, we have found these employers willing to go out of their way to provide a high quality of experience for those employed and to cooperate fully with the school in helping to give a well-rounded instructional program.

I have already hinted at some of my thinking regarding relationships with others in the traditional vocational education services. I think somewhere in one of the agricultural education magazines you will find a statement to the effect that the early programs in vocational agriculture borrowed some of the elements of biology, chemistry, and physics and wrapped them up in a new package called vocational agriculture. In the same way, I am convinced that we are now at a point where we must select elements of business, agriculture, trades, social science, and other fields and wrap up new packages for the training of workers in non-farm agricultural business and industry. What these packages will contain still needs to be determined. For example, the Cornell study indicates that employers would like truck drivers, who serve farm customers, to have some agricultural background or training. However, we do not know specifically what should be included for them. Certainly it needs to be different from that needed for the girls working in the CPA offices or the boys working in a farm elevator.

The length of training programs also needs to be flexible. In some cases we will be training people for very minor jobs and in other cases the training will be at the technician level requiring two or more years of full-time educational work beyond high school.

Also facing us is the problem of a school organization geared to meeting the training needs of this great complex of occupations. For some of these the number of job opportunities is so limited the training will need to be given on an area, or on a state-wide basis. In other cases training may be offered at the high school level within the high school district. We have worked with some groups of superintendents of schools on the development of programs covering an area, but using existing school district organization. These have received favorable consideration, but as yet have not gotten off the ground. Many of us believe that the community college organization is adapted to offer the post-high school program in this area. However, if they do, they will need to broaden their programs beyond merely training for the four-year college course.

In any type of organization we can envision, we will need opportunity for adequate work experiences, well-qualified teachers, with experience in an agricultural business and with sufficient instructional materials for a thorough and interesting teaching program.

In regard to the instructional materials aspect of our program at Pigeon, I feel this is one of our greatest weaknesses. It is relatively easy to find materials covering agricultural subject matter which is needed. Likewise, there is a wealth of instructional material for business. However, nowhere were we able to find materials that integrated these two areas into one package suitable for the students we enrolled at Pigeon. It is essential that these materials be developed if we are to make progress in the field.

Now I would like to turn our attention to the question of teacher training and supervision. The principle in vocational education that the teacher or coordinator must be experienced in the field in which he is working must still hold for this new type of

training program we are discussing. We also believe that these people should be well trained in the technical subject matter as well as in the teaching methods appropriate for the occupations in which training is being given. This has many implications for teacher training institutions. We will need teacher trainers with a different background of experience than is now common and I believe we will need to develop many new kinds of courses for prospective teachers in these fields.

At present we do not have these kinds of teachers in the field. In the pilot program, we chose a teacher who would come as close to these general qualifications as possible. Next year we will use a man who has had considerable experience in business, and who is an industrial arts man in the school. We will do our best to provide him with in-service help, calling on teacher trainers, subject matter specialists, state supervisors from agriculture, business, and trades, and any others who can furnish us with appropriate help in the area.

To be successful, we will require a high level of cooperation between the various services of vocational education. We cannot afford to take the attitude that any one service is "now doing all that is necessary," nor can we hide behind the screen that says, "Our present program is the best possible one to meet the new needs." These attitudes just will not be acceptable for new programs which will be developed.

While I am on this subject let me add one other thought. Many times I am told that our reimbursement moneys get in the way of progress. This is not necessarily true. It may be true when we say to a superintendent or a teacher, "You can't do that because it is not according to state plan," or when we use the threat that "This is not reimbursable." On the other hand when we are willing to work with superintendents and teachers on experimental programs (which we can reimburse) cutting across lines between the various vocational branches, we can use vocational moneys to help develop programs to meet the needs of new generations of students who will be working at entirely new kinds of jobs.

4. Future exploration.

In closing, let me point out another kind of problem on which we must spend some research time and money so that we will have a firm foundation on which to base training for the non-farm agricultural business and industry.

This problem deals with identifying training programs and their content. So far, it seems to me we have been compiling lists of job classifications. This is good and we need them. However, we already know that job classifications are not indicative of the abilities, understandings, or skills required of workers. In some cases we found a bookkeeper in a farm supply business also waited on customers and in other cases she never saw the customers. Sutherland reported a similar situation regarding servicemen in farm machinery establishments.

I believe that we must undertake some research that will give us a complete breakdown of functions performed by employees at all levels throughout each type of industry or business. For example, we need a complete analysis of all the functions performed at all levels throughout all the farm machinery business, all the nursery business, all the feed business, and the like. When this is completed, we will be in a position to organize training programs to enable employees to perform needed functions. And of course, we will need to constantly revise and update programs to keep up with the changes that are bound to come as new discoveries are made and new practices and new services are developed. Vocational programs can never become static if they are to serve the needs of a dynamic society such as that in which we are living.

Summarizing, the research we conducted in 1958-59 helped to convince us that training programs for the non-farm agricultural business and industry needed to draw on elements of agricultural education, business education and trade and industrial education for its content. These elements must be integrated into a well-rounded program of instruction for students so that a thorough understanding of the relationship of one to another is apparent. Instructional material such as textbooks, manuals, and other types must be prepared to meet the needs of teachers and students in these areas. The instructional materials we have found which are geared to one or the other of the traditional vocational education services are not adequate for the new "package" of materials which we feel is essential.

Growing out of the earlier research we were able to establish the pilot program at Pigeon through the cooperation of the local board of education, school administrators and

businessmen of the community. The program provided opportunity for work experience for a number of high school seniors who were also organized into related instruction classes in the high school for part of each day. The coordinator-teacher was a teacher of vocational agriculture who had had considerable business experience and who was able to work with the businessmen of the community as well as other teachers in the school system to provide a well-rounded instructional program for the students.

While there are many questions yet unanswered, we feel that the pilot program has demonstrated one way to help local schools in the development of more adequate vocational programs to meet the needs of a large segment of the working population in their communities. Development of the program will require a complete breakdown of barriers between traditional vocational education services and the organization and operation of many new kinds of teacher training programs involving personnel from the traditional vocational education services as we have known them.

IMPROVING OCCUPATIONAL INFORMATION AND GUIDANCE SERVICES

by
Bert L. Brown
Director, Agricultural Education
Washington

Distinguished guests and fellow workers in agricultural education:

In the beginning I should like to make several points clear -- What I report to you is the result of state staff consideration and action, involving the entire state supervisory and teacher education staff. Of course, you undoubtedly know that the State of Washington is unique in the respect that our teacher education staff are also supervisors. The two men at Washington State University alternate by six month periods as teacher educators and as supervisors. Our work has been on Opportunities in Agriculture rather than specifically in Agricultural Education Guidance. We are not trained guidance persons--therefore, I do not come before you as an authority on guidance. Then, too, I must tell you the truth for one of our supervisors, Henry Polis, is a member of this group, has been an involved member of our work and so will be checking on anything that I might say.

This picture of this nondescript, evidently frustrated character illustrates quite well the state of frustration in which our entire state staff found themselves back in the years 1955-58. We had a problem and frankly we weren't sure what we were going to do about it.

Enrollments in our day school vocational agriculture classes were dropping quite sharply. I dare say that a number of states, your state, were experiencing dropping enrollments, too.

ENROLLMENTS (DAY SCHOOL)

Decrease	1955-56	300 (Approximately)
	1956-57	300 "
	1957-58	300 "

This (1957-58) was the lowest point in enrollment in the 15 years, 1942-57. It was not only the lowest in numbers but we were also experiencing a decrease in the number of boys of higher academic ability. For years we have run a continuing study of the GPA's (Grade Point Average) of graduating senior vo-ag boys as compared with the GPA's of graduating seniors in their respective high schools. We knew we were getting fewer of the boys of higher academic ability. For example, in one high school graduating class of 62 (and that would give you an idea of the size of the school) the highest GPA among the graduating vo-ag students was 26th out of the 62.

We got together -- as an entire staff -- and discussed this problem, probing for the reason why. We came up with three primary reasons:

1. Conflicts of schedules with desired or required subjects.

2. "Sputnikitis" (both parents and schools).
   a. Emphasis on science.
   b. Emphasis on mathematics.

3. Counseled away from vo-ag.

   In a number of cases we found where boys, particularly those of the higher academic ability, had been actually counseled not to enroll in vocational agriculture.

We Did Some Studies -- to find out where our students in vo-ag were going. For a number of years, as part of our "Final Report on Directed or Supervised Practice," we had asked our instructors to report on the "Status of Former Students". Frankly, we had not made the use of this report that we should have made. These figures were not exactly "fair" to placement in vo-ag because they included every boy who had been enrolled in vo-ag for one year or more. We maintain that vo-ag should not be held responsible for the placement of a boy who has taken just one year of work. Here is what we found:

ALL STUDENTS

Farming	26.4%
Related Occupations	27.0%
Professional Agriculture	10.0%
Group in College	7.0%
Military Service	5.0%
Non-Farm	13.0%
Deceased	3.0%
Whereabouts Unknown	8.6%

So we took a look at some special groups. The first group, that of our State Farmers, all had two or more years of vocational agriculture. There were 1828 in this group.

STATE FARMERS

Farming	29.5%
Related Occupations	7.2%
Professional Agriculture	5.1%
Non-Agricultural	14.6%
Military Service	11.4%
In School or College	25.9%
Deceased	1.1%
Whereabouts Unknown	5.2%

This study was not exactly "fair" either for almost 200 included in the study were still in high school and should have been excluded from the study.

We next took a look at our American Farmers. We will admit that these were a "special" group -- boys who had been leaders in high school and boys who had an average of almost four years of vo-ag training. There were 85 in this group.

AMERICAN FARMERS

Farming	76.1%
Related Occupations	3.0%
Professional Agriculture	4.5%
Non-Agricultural	1.5%
Military Service	7.5%
In School or College	4.5%
Deceased	2.9%

We determined that there were more than 1000 teachers, high school principals, and others who were charged with the responsibility of guidance and counseling in our public high schools. These were men and women who were devoting one-fourth time to full time in counseling and guidance work. These were the men and women who were counseling boys to prepare for, or not to prepare for, a career in the agricultural occupations.

Few of these counselors had training or background experience in agriculture which would give them more than a meager concept of the opportunities in the entire field of agriculture. We found only three who were graduates with a baccalaureate degree in agriculture. These were former vocational agriculture teachers who had gone into administrative work and were devoting part time to guidance and counseling.

We realized that it is an impossibility for any one person to have a grasp of the opportunities which exist in all of our many occupations and professions. It has been said that there are over 500 different occupations in agriculture alone. It, therefore, was our job as agriculturists to place in their hands some tools which would assist them in informing students of these career opportunities in agriculture.

We Got Busy -- and here again I should like to stress that this was an effort of our entire staff. Everyone was involved and everyone made a contribution.

We first made a study of 284 agriculturally associated businesses, "Training Needs of Workers in Business Associated with Agriculture." This study was of the personal interview type where we went to the personnel managers, the owners, the managers, directly to the men who were doing the hiring, to find the needs of training in various levels of employment in their respective businesses. Our sampling was made from a listing obtained from Dunn and

Bradstreet from businesses said to be associated with agriculture. The interviewers were some 40 vocational agriculture instructors who had received 10 clock hours of instruction on Procedures of the Interview. This study convinced us that there were 2+ (almost 3) opportunities in the associated businesses where background and training in agriculture were essential or highly advantageous to everyone which existed in farming. This was exclusive of professional agriculture. We also found that these occupations were on the increase.

"VOCATIONAL AGRICULTURE INSTRUCTION -- WHAT IT IS, WHERE IT LEADS -- ITS RELATIONSHIP TO OTHER TYPES OF INSTRUCTION"

The content of this manuscript is explained in its title, and its primary purpose is to place in the hands of the teacher, the counselor, the school administrator, and others a syllabus, which in a few pages would give them a better understanding of the importance of agriculture and how instruction in vocational agriculture and farm experience may lead to careers in the many fields of agriculture.

Agricultural Occupations Information

This is a bibliography of sources of information on the agricultural occupations -- a listing of the books, bulletins, brochures, and visual aids pertaining to the many careers in agriculture. We found many sources describing the various occupations of farming and those occupations in technical and professional agriculture requiring training in college, but somewhat of a dearth of material on the other agricultural occupations. We were most fortunate in having a woman who was trained in library research assigned to our department. She reviewed these bulletins, brochures, and other materials for us, made a selection; and made a digest of their worth. It would have been impossible for state staff to review the myriads of bulletins, brochures, and other materials which were available. This has been a most popular manuscript, with copies widely circulated in our state and with multiple copies going to all states in the United States upon request.

You Can Take It with You

This is a two-color poster depicting how a boy's farm background, farm experience, and interest in a specific area of study -- science, communications, teaching, conservation, economics, etc. -- can lead to a specific career or group of careers in agriculture. This has been a most popular item. It needs to be revised and brought up to date for many new and excellent publications have become available and some of the listed materials are now out of print.

Newspaper Articles

This is a series of articles designed to tell the story of vocational agriculture through the medium of the weekly newspaper. They are skeleton articles in which the teacher can write local adaptations and which would appear in the local paper under the by-line of the local vocational agriculture teacher.

Your Career Unfolds

This is a single sheet with a three-way fold, designed to do three things -- tell students what they may learn in vocational agriculture, that it is possible to take three to four years of vocational agriculture and still prepare for college, and the opportunities in agriculture after graduation from high school. This has been a very widely disseminated item for some 25,000 copies have been distributed to students, mainly in our own state.

We believe that in any agriculturally oriented guidance program -- in fact, in any guidance program in the rural high school -- the vocational agriculture instructor is a KEY MAN. Through his visits to the farming programs of his students he develops an understanding of their attitudes, their circumstances and environment that is not equalled by that of any other teacher. He also has a better knowledge of the opportunities in agriculture.

We put on a campaign. We first gained the support of the State Superintendent of Public Instruction and the State Guidance Director. We wanted the privilege of telling our story to the guidance people in the rural high schools and junior high schools. We met with them in district meetings where the vocational agriculture instructor brought his superintendent, his principal, and the head guidance person. We met with them in small groups; we met with them in their schools and offices. We met with them any time, any place that any opportunity afforded. We told them the story of the importance of agriculture, that agriculture is science, and of the many opportunities that there are in agriculture in addition to farming and ranching. We impressed upon them that agriculture is "Bigger than Farming".

At this time we solicited the support of the School of Agriculture at Washington State University. We found them willing and eager for they, too, had the problem of decreasing enrollments and realized that since vocational agriculture is a most important "feeder" for enrollments in college agriculture, if we didn't enroll them in high school they had little chance of enrolling them in the College of Agriculture. The college began "stumping" the state telling the same story.

This campaign again was a state staff effort with everyone doing his part. We believe that even though it takes considerable time and effort, these individual contacts with counselors, etc., pay the greatest dividends -- to sit down with them, go over material, leave material, and show them how they can use it. Most of them were very cooperative, some enthusiastic and thankful for the information that was placed in their hands.

Traveling Libraries

We prepared seven lending libraries (single-drawer files), each containing sufficient copies for classroom instruction (25-30) of the publications deemed the most valuable of those available on agricultural occupations. We also made available two copies of the film, "Careers in Agriculture". Besides our own publications, each library contains a copy of "Guidance in Agricultural Education" by Byram (mainly as a reference to the instructor) and multiple copies of "Careers in Agriculture," Stern; "I've Found My Future in Agriculture," Land Grant Colleges; "Employment Outlook -- Agricultural Occupations," U. S. Department of Labor; "Tommy Looks at Farming," B. F. Goodrich Rubber Company (this publication is written in comic book style and was very popular, particularly at the junior high school level); "Choose Your Career in Agriculture," Hoards Dairyman (this publication is one of the best and describes in detail some 48 agricultural occupations); "There's a Future in Your Farm Background," National Sales Executives, Inc.; "Your Future Is What You Make It," National Association of Manufacturers; and many others.

Each supervisor has one of these libraries and schedules it to a school for a two-week period. All of our schools have used them at least once in connection with a unit on agricultural careers.

As you can readily see, much of the material which we have placed in the hands of our teachers and counselors was not written by state staff but was obtained, using the bibliography, from other sources, such as commercial publishers, governmental agencies, and colleges. Teachers are urged to gather their own source material and many of them have. Needless to say, this has cut down on the demand for the lending libraries.

Instructional Guides for Career Guidance in Agricultural Occupations

This is a guide designed to assist the teacher in presenting a unit on the career opportunities in agriculture. Materials which are of most value and included in our lending libraries are among the many listed in the bibliography.

WHERE TO NOW

We need research to point the way. We not only must know how many jobs, what they are and where they are, but we must know what they take in the way of training. Research and studies must be completed and soon. It's later than we think -- we've got to get tooled up. We need job analyses and job descriptions as a basis for guidance and counseling and for course construction for specific agricultural occupations and for "clusters" of agricultural occupations. We think we have found such a "cluster" in the two-year course for agricultural food technicians which is being established at one of our community colleges (Skagit Valley College at Mount Vernon, Washington). Here certain basic, fundamental knowledge, experience, and techniques are common to several agricultural occupations, such as the dairy processing, freezing, and canning industries.

We need more trained personnel for the huge job in guidance and counseling that is ahead of us. We need specialists in occupational information and specialists in student personnel service. Again, I would point out to you that in any agriculturally oriented guidance program the TEACHER IS A KEY MAN and so our teachers must be trained.

We need to develop materials on the agricultural occupations other than farming and ranching. At present there is a dearth of materials in these fields and somehow we are going to have to make up the deficit. Since there are said to be over 500 different agricultural occupations, it becomes a big task. We need these so we can counsel students on opportunities and what these jobs take in the way of training--and so we can intelligently set up training programs.

We have an urgent need for more full-time state guidance personnel. It is now thought that there are over 250 full-time equivalent state staff guidance supervisors and consultants. All of the 50 states have at least one full-time equivalent person devoting his time to direction of guidance and counseling on the state level. We need more of these persons to lead the way.

We need more and better local guidance programs. At the present time there is said to be one full-time equivalent counselor for each 550 students -- more than 16,000 in the U. S. The desired ratio, according to the U. S. Office of Education in a report to the International Conference on Education in Geneva in 1961, was one to 300. But even at that, I ask you, how can one guidance person satisfactorily counsel 300 students academically, personably, and vocationally? It would appear that guidance personnel have become "slaves" to administering "batteries of tests". They have become so involved with the mechanics and the huge amount of records and paper work that it leaves very little time for guidance. Then, too, so much of their time is taken with scheduling and working with the student who is in extreme difficulty either academically or personally, that it leaves very little time for anything else. One thing is for sure, very little individual occupational guidance is given except possibly for those occupations requiring college training.

Our staff seems to differ from what we read in the report of the Panel of Consultants, who seem to advocate that we proceed in the direction of providing professionally trained guidance personnel. We seem to favor the provision of specialists in occupational information who have some professional guidance training -- enough professional guidance training to make them "respectable" and accepted in guidance circles.

Right now, we as state staff have a big responsibility for at the present time they are setting up the criteria for the certification of guidance personnel. We need to see to it that the training programs of these people have elements of vocational guidance and vocational opportunities.

If we go to professionally trained guidance personnel, we have to see to it that occupational information is provided. If we go to specialists in occupational information, we have to see to it that our vocational educators have enough professional guidance training to be respectable in guidance circles.

THE TEACHER IS ALL IMPORTANT. The Los Angeles Trade and Technical College has been cited for the excellence of its guidance program. Yet who gave the largest share of the guidance? The instructor -- 28.5%.

We need expanded programs not only for secondary education but also for elementary. We have a suspicion and an opinion that many of the school drop-outs have their start in the elementary grades or even at pre-school ages (broken homes, environments, lack of finances, lack of hope for the future, poor and non-readers, and no guidance as to opportunities). Some of this could be prevented with proper and adequate guidance.

Our drop-out rate is said to be 26% in our secondary schools and we are in the middle of the states in this respect -- a few of them running as high as 40%. It is going to take real guidance to "pick up" these people again. Training programs for these people are needed.

We need expanded programs of guidance for our post-high school group. These young people are a big part of our unemployment problem today. They need guidance; they need vocational training. Many are married and need help, training, and guidance in home and family relationships. Need I point out to you that some 26 million young people will be added to our labor market between 1960-1970? They need saleable skills.

We need to do more work with adults. First, it would appear that they need guidance as parents. In all probability this should help in solving some of our other problems such as our school drop-outs. Then, too, they need guidance and training as individuals. It has been said that every man is to be trained once and retrained four times in the future.

Then we need special guidance for "special" students. May I briefly relate an interesting experience we had this last fall. Our green bean producers were short of pickers this last fall due to an unusually late season. High school students who normally supply the main force of the labor for the green bean harvest returned to school, leaving the producers drastically short of enough pickers. Vocational agriculture, working cooperatively with the Division of Vocational Rehabilitation, counseled and trained and helped supervise a group of "special" students. In this case these students were of lower mental capacity

where even bean picking had to be simplified. They not only helped to get the beans picked but cooperatively something was done for these people which is far more important. They earned money; for some of them it was the first they had earned by their own effort. Many of them did very well, too, for they averaged out at over $4.00 per day and one girl made over $8.00 per day. It gave them a sense and feeling of stability, of success, of confidence, of being needed, that they never had experienced before.

We did about the same thing with a group of these "special" students in forest replanting. Here, however, it was necessary to guide and to supervise these students through a conditioning period for forest replanting is extremely hard work. Even such things as doubling their calorie intake were taken into consideration. This was, of course, in addition to instructing them on how to plant trees. As a result, they planted more trees and did a better job than regular crews in spite of very inclement weather.

Most certainly we should place in this group the 7,800,000 persons in the U. S. who do not have functional literacy. These people need guidance; they need training for saleable skills and they need functional literacy so that they can hold a job in our present day economy and society.

We need to do much more intensive guidance work on placement. In the Los Angeles Trade and Technical College (cited for its excellent guidance program) 29.7% of the students felt they needed counseling on job placement whereas only 8.6% said they had received it. It does little good to train unless they are placed on a job and hold these jobs.

Sure, it's going to cost money and effort. It is going to take far more than the ten cents per student in vocational education money that is being expended today on guidance. Furthermore, it should be, must be, a cooperative effort involving local, state, and federal resources.

OUR NATIONAL CENTER

(For Advanced Study and Research in Agricultural Education)

After years of prudent study
By strong men in every state,
For a place to solve our problems
Or, spread new ones on the slate--
Where we, with others in our fold
Could let down what hair we have,
Without losing face or status--
Without need for soothing salve.

There was fear of duplication,
There were hopes for better ways
To seek out and deal with factors
Which spell progress or delays.
Pros and cons were well defended
Through the forum and the pen.
When the final vote was taken,
The decision read, "Amen."

With two seminars behind us,
On research, and future role,
Well attended 'cross the nation,
We may feel we've reached our goal.
We've made a start, let's praise the Lord
As we rally to a man,
Bringing new fuel to stoke the fire,
And thus forge the missing span.

A. J. Paulus
July 28, 1963