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A THEORETICAL MODEL TO IMPROVE THE EXTENSION EDUCATION OUTREACH OF THE OHIO STATE UNIVERSITY; UTILIZING MARKETING, BEHAVIORAL, BUSINESS, MANAGEMENT, AND SYSTEMS CONCEPTS.

The Ohio State University, Ph.D., 1971
Education, administration

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1971
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EDUCATION OUTREACH OF THE OHIO STATE UNIVERSITY;
UTILIZING MARKETING, BEHAVIORAL, BUSINESS,
MANAGEMENT, AND SYSTEMS CONCEPTS.

DISSERTATION
Presented In Partial Fulfillment Of The Requirements For The
Degree Doctor Of Philosophy In The Graduate School Of
The Ohio State University

By
James Russell Miller, B.Sc., M.Sc.

The Ohio State University
1971

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PLEASE NOTE:

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CHAPTER I
BACKGROUND OF PROBLEM STATEMENT

The problems of The Cooperative Extension Service nationally, as well as in Ohio, appear to be similar to the problems faced by a large, well-established corporation who* has been successful during a generation or so of dynamic leadership. However, the organization, expertise, products, services, facilities and locations are beginning to be threatened because of changing total markets, shifting audience segments, new technologies, new concepts, geographical shifts, and organized but flexible competition hitting traditionally solidified areas.

In short, a large successful, mature structure (be it a corporation, Cooperative Extension Service, a university, or an athletic team) is being threatened by the piercing questions and actions of the newer, younger, smaller, more tightly grouped and aggressive challengers (again be they firms or companies, sociological or demographic pressure groups, or newly formed teams.)*

Brief History

Adult education in America probably started when the first settlers landed in Jamestown in 1607; because in order to survive, they had to learn new requirements in a new environment. The forces

*Author's Note: Grammatical license is exercised by author because organizations are made up of people, "who"....

**Rationale of the analogies is more obvious on the Vita page.
unleashed by independence, the westward expansion, the industrial revolution, and the European enlightenment produced new drives for gaining new knowledge.  

New institutions developed to spread this new knowledge. These included libraries, institutes, churches, associations, societies, and lyceums. The lyceum movement gave birth to the lecture forum which later became an important part of "University Extension" development.

Because so many of the early societies were agriculturally oriented, the early nineteenth century saw the need for coordination. State boards of agriculture began to emerge. This developed into a definite movement for agricultural education by 1852. By 1860, the United States Agricultural Society reported 941 organizations.

In 1862 the Federal Department of Agriculture was established and the Land Grant Act (Morrill Act) was passed. Legislation enabling the establishment of state experiment stations was passed in 1887. Out of the ferment of changing needs, three large voluntary associations of farmers grew; the Grange in 1867, the Farmers Union, 1902, and the American Farm Bureau in 1919.

During this same period, the inception of The Cooperative Extension Service took place. Originating in 1904 through the monumental work of Dr. Seaman A. Knapp, the Cooperative Extension Service was enacted through the passage of the Smith Lever Act in 1914; and was destined to become the largest single educational organization ever created.  

2Ibid., Chapter 18.
While the overall or continuing objective of the Cooperative Extension Service has been education, the major subjects and methods have changed over time. During the 1920's emphasis was on intensive farming. In the 1930's educational institutions grew to improve farm and land use planning which continued into World War II. The post war decade of the 1940's was spent in readjustment and technological infusion. Emphasis on the farm and family, community and rural development followed in the 1950's. The past decade of the 1960's has been used for introspection and readjustment toward improved resource development. Generally then, emphasis on individual decision making, on cooperative group effort, and on family unit importance has changed with changing farm needs.

The federal and state Cooperative Extension Services unquestionably have served very well not only the agricultural sector of the United States, but their positive influence has been extended to other parts of our society, as well as the world. Practical adaptation of new technology has been greater in U.S. agriculture than in any other industry. The displacement of persons and facilities and the re-use of these resources has made great strides. The interface of rural and urban America to date has been well served by the agents and programs of The Cooperative Extension Service.

However, the exodus of people from rural to urban areas has provided only short term relief from agricultural economic pressures. Today the problems of central urban areas, urban poverty, resource

---

conservation, economic utility, and rural poverty are beginning to be viewed not as independent and separate problems but as sub-systems of the basic problem--"Total Human Resources and Their Utility".

Recent Developments

In defining its own strength and weakness, The Extension Service has begun to analyze the role it should play in the future. It is questioning as to where it will be the same, where and why must it change. The following descriptors of the Cooperative Extension Service were condensed from "A People and A Spirit" to provide a general outline of thought.

Provides main outreach of the land-grant universities.

Maintains offices and professional staff in almost all counties.

Is accepted as having a degree of objectivity and detachment not found outside the educational system.

Relationships between research and Extension activities have traditionally added to the strength of both. The public benefits from this.

Extension personnel are highly motivated.

Capability has been demonstrated to associate with and use the existing local power structure.

Orientation is traditionally toward individual decision making.

In many institutions, does not have access to the total knowledge base of the university.

Appears to have limited access to and communication with the federal establishment outside of the USDA.

Carries image of being oriented primarily to farm people.

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There is ambiguity and confusion of the function as the educational arm of the USDA, and as to the meaning of its role as the "off-campus arm of the University."

State laws are limiting.

Variation in program philosophy and organization among the states tends to dilute the strength of national efforts.

There is question of ability to mount new programs which may impose change upon the activities and attitudes of agencies within local power structures.

The amount of identity in its traditional programs is questioned.

Pressures of Change

Nationally, the pressures of change mounted during the past two Democratic presidential administrations. These culminated with the Title I Higher Education Act of 1965. After four years, the limitations had become so obvious that great concern was expressed as to the future. The question was raised as to capability of the university to provide solutions to urban problems. A more basic and still debated question seems to be—should universities try to help the urban areas as they did the rural development?\(^5\)

Penetrating questions are being directed to the Cooperative Extension Service. Can the Cooperative Extension Service be useful? Even if it could revise and re-use traditional methods, would the Extension Service be recognized socially, professionally, and politically so that necessary resources could be forthcoming? Blalock, et al., point out that the image of the Cooperative Extension Service varies

widely even within the Extension Service itself. In some writings whole new institutions are being suggested such as an "Urban Extension Service."\(^7\)

**Ohio - A Progressive State**

In Ohio specifically, much effort seems to have been expended to identify where change is possible and feasible. An evaluation was made and used to point the way to areas of correction and improvement. Briefly, the following are exemplary of these research findings by Battelle Memorial Institute. Other states have made similar studies.

The findings of this study indicate that the single most important factor underlying many of the current problems in Extension's organization and operations is the lack of a clear-cut definition of purpose and objectives. This results in unclear guidelines to Extension supervisors and workers concerning the choice of most needed programs and activities, selection of clientele, and operational procedures.

Recommendation of suggested changes in the organization or operations of the Extension Service include specific changes concerned with (1) maintaining the desired public image of Extension, (2) providing a more timely and more specialized service, (3) initiating certain programs at the state level of Extension, (4) providing more specific and clear-cut policy guidelines to Extension workers, and (5) initiating experimental projects in different methods of communications, different structural arrangements, and the like, that might improve Extension operations.

Recommended general changes include: (1) appraising the purpose and objectives of the Extension Service, (2) creating a long-run plan of development for Extension, (3) closer association with the university,


(4) making available the total resources of the university to local communities, and (5) establishing a Continuing Education Extension Division of the university.

Thus it is recognized that Ohio is a progressive state. The Ohio State University, the Board of Regents, the alumni constituents, and levels of government, as well as the political environment surrounding the Cooperative Extension Service and other University Extension outreach efforts of the Ohio State University provide ongoing support. They also make constructive suggestions. This is healthy and productive to progress. However, the built-in rigidities of the institutions and established power structures can tend to inhibit progress at the same time.

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CHAPTER II
RESEARCH PROBLEM DESCRIPTION

The specific purpose of the research project was to develop a theoretical organization model to improve the Extension outreach of The Ohio State University. Given the University, through its various Extension thrusts and Continuing Education programs is recognized for its excellence both within the state and nationally when compared with other states. For example, in 1968 Ohio ranked first in number of 4-H clubs and fifth in total number of youth enrolled. Ohio is a national leader in Legal Continuing Education Extension services.

Some persons might ask then, "How or why should we be concerned with improvement?" One reason is that the Cooperative Extension Service has so often identified themselves as change agents, educational innovators, practical leaders of action. Change, then, is synonymous with Extension. However in the past, change in the Cooperative Extension Service especially has been measured in decades.

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9Miscellaneous Cooperative Extension Service Report, Columbus, Ohio: The Ohio State University, College of Agriculture, 1970.
10Albert M. Kuhfeld, Annual Report, Columbus, Ohio: The Ohio State University, College of Law, 1969-70.
12Sanders, The Cooperative Extension Service.
Furthermore, Van Dalen states that educational innovation requires twenty-five years from the inception of an idea until it is put into practice.\textsuperscript{13}

The author's experience in the agricultural and foods industries indicated that farm implement manufacturers' new product horizons were about seven years. In consumer fashion goods, it was one year. In the food equipment and packaging industries, the time horizon was three years from idea conception to commercialization and profit payback. This was as late as 1967. Certainly this has been improved even more with sophisticated computer simulation models for venture analysis. Change and the parameters of change appear to be more rapid and accelerating.

Producers are using computers to simulate farm and finance plans through banks, insurance financiers, and farm bureaus. Vertical, horizontal, and conglomerate integration in processing and food marketing companies have brought much decision making technology and managerial skills into the traditional audiences of the Cooperative Extension Service.\textsuperscript{14}

Furthermore, pressure groups are making their impacts on other audience segments demanding change now, not later. Bennis and Slater state that "Change is the one thing in American life that seems to be


\textsuperscript{14} Konrad Biedermann, James R. Miller, Odin Wilhelmy, Jr., "A Technical Economic Evaluation of Profitable Expansion Opportunities In U.S. and Canadian Animal Agriculture For Quaker Oats Company", Columbus, Ohio: Battelle Memorial Institute, March 29, 1967.
a stable entity.... The more rigid authoritarian systems that have pervaded our past aren't equipped to cope with the constancy of change."^15

Therefore, probing questions do have their place as was noted in the background chapter. Is the Cooperative Extension Service and The Ohio State University General Extension Service outreach responding fast enough? Is it reaching into the new areas dynamically with the correct dimensions and proper velocity? To repeat, the University has performed admirably, but can this really be judged precisely today when the environment changes so fast that past standards of success no longer apply? It is from this positive position that this project embarks.

Assumptions

If the assumption that the Cooperative Extension Service can and should be a source of technical change and leadership, then a new model of organization should be developed.

Further, if the assumption follows that universities should become involved in change in urban and poverty environments, then again a new model of organization is needed.

Lastly, if the assumption that traditional Extension Service methods basically are relevant to performing change agent leadership in urban areas, then again the new model of organization is needed.

Limitations

The new model must reflect the response to the new needs but yet make use of the still applicable and pertinent elements on which previous success was built in order to expedite response within most efficient time and budget constraints. Source materials for current status reports proved to be limited to primary documents found within individual offices.

General Objectives

The State of Ohio is strategically located in widely diversified types of land use, and since it ranks high in industrial development and population growth; a theoretical model of organization could incorporate a wide range of variables.

Two of the major variables to be considered in building a theoretical model are location of change and the change agent or personnel. These need to be considered at all levels of activity, e.g. local, area, regional, state, and national.

Since the Cooperative Extension Service in Ohio is heavily agriculturally oriented and funded, and since it is staffed largely with traditional problem solving personnel and capabilities, the model to be tested should encompass the best of the past utilized in the still applicable areas; but also be flexible to allow for whole new concepts to be funded, staffed, and tried.

One method not defined in the literature, but based on the author's research and experience would be to restructure the local levels of contact into new definitions. Counties could hypothetically be redefined as METRO COUNTIES, RURAL COUNTIES, and URBAN COUNTIES,
Those counties that are of predominantly industrial and urban composition could be called METRO COUNTIES. Other counties that are primarily agricultural could be classed as RURAL COUNTIES, and those in between might be referred to as URBAN COUNTIES because they are still primarily agricultural but contain several growing municipalities.

It is hoped then that if the theoretical models developed and tested herein are able to offer some improvement in Extension outreach in a progressive state like Ohio, then the results could be viable and generalizable to other land grant universities. The Federal Extension Service could thereby mutually benefit as well as other federally funded programs.

**Specific Objectives**

The specific objectives of this study needed to develop a theoretical organization model to improve the Extension outreach of the Ohio State University include the following:

1. Describe in detail the current status of the outreach programs now in effect in the various colleges and regional campuses of The Ohio State University.

2. Identify, describe, and dissect for comparative study the concepts of Extension, systems analysis concepts, marketing concepts, behavioral concepts, business cost-benefit analysis and dynamic environment decision making concepts.

3. Describe in text and illustrations the theoretical models for each level of Extension - state, area, and county.
(4) Define the line organization, the staff organization, and the communication network as it relates to formal and informal organization theory.

(5) Field test the models with a sample of personnel representing Cooperative and General Extension organizations in the eastern United States. Twenty-two institutions were contacted.

Methodology

Using literature review and personal interview techniques the current status of Extension outreach of the University was described as a basis of departure.

Concepts and comment from other disciplines that were applicable or pertinent were related to the objective and benefits or disadvantages as seen by the author or other interested reviewers. Proven principles of "Systems Analysis" were used.

Again using literature review, experience, observation and interview techniques, theoretical models were developed, designed, and illustrated. Critical levels and elements were identified. The formal and informal relationships and communication networks were outlined briefly.

The models were presented along with supporting written text. The report draft was refined and improved and was then exposed to experts for constructive suggestion and dialog. The first four chapters, or approximately 120 pages of the draft were reproduced, bound and mailed to each expert along with a cover letter and questionnaire.
The experts were defined as high level administrators of Extension in state universities and land grant colleges. This suited the first criteria that the institution must have an Extension outreach and be a comprehensive university complete with professional degree granting facilities.

The institutions were located in midwestern, southern, eastern and southeastern states, generally within the four corner states of Minnesota, Louisiana, Georgia, and New Jersey. This complied with the second criteria that general subject and audiences of the outreach must be similar in the aggregate with Ohio. Some of the sub-criteria considered included: size, land use, population, urban development, agricultural production, resource development, industrial development, etc.

The third criteria was that the experts should be able to offer perspective from both the merged general and cooperative extension service; as well as the independent cooperative extension and independent general extension service. The total of states, twenty-two, included fourteen with separate extension service. The eight states with merged extension services included: Wisconsin, West Virginia, Missouri, Georgia, Delaware, Virginia, Iowa, and Alabama.

Each of the above recipients was offered no incentive to respond. Recognizing the value of the time factor in reading 40-120 pages and responding, it was felt that response would be encouraged through a second contact. The time limit of one month after anticipated receipt by the expert was selected as a non-response cut-off date. In other
words anyone not responding by mail or phone within thirty days after mailing date plus five days was considered a non-respondent. Mailing date was April 28, 1971.

Response was recorded according to the questions, tabulated, summarized, and analyzed in Chapter V. Since this is a descriptive type study containing value judgments from observations and experience, little statistical inference was used. Chapter VI contains the conclusions, pertinent commentary and implications.
CHAPTER III
CURRENT STATUS - OSU EXTENSION SERVICES

The Ohio State University has a somewhat complex thrust toward its Extension outreach beyond the Columbus campus. Over time there have developed a variety of plans, pressures, and responses. There are now four branch campuses. The Cooperative Extension Service of the College of Agriculture and Home Economics utilizes experiment stations, ten area offices, and eighty-eight county offices. General Extension functions have grown or are being investigated by several of the more aggressive schools and colleges: (e.g. medicine, veterinary medicine, optometry, nursing, engineering, education, law, and administrative science.) There is some activity in urban extension. A major overall thrust in the whole field of continuing education is being made on the Columbus campus. The new $6 million building, The Center For Tomorrow, was completed in early 1970 to house, feed, and provide on-location continuing education services. University communications and information handling via radio and television, visual aids, libraries, etc. comprise the Office of Educational Services under the administration of a vice president. The above groups are briefly described herein to offer perspective to the analysis chapter where total marketing concepts, total extension outreach and extension mergers will be discussed.

In this study, the major emphasis will be on the Extension Service of the College of Agriculture and Home Economics. It is here that the
greatest resource base is already available. It was here that the Battelle study caused the greatest impact. Since that time, the Cooperative Extension Service has made great efforts at introspection of itself. It has investigated needed change and has taken much positive action. According to the present leadership, there is renewed enthusiasm at all levels of service. New methods of communication are being utilized. New sources of funding seem to be appearing. For example, a one-day information program was taken to each area office to interpret the services of the Extension for their respective county commissioners. The result has been that over eighty counties now have generated some sources for local funding. 16 Thus the current philosophy of the Ohio Cooperative Extension Service is to be more dynamic and convey the image of broadening the scope of agriculture and audiences served to the most inclusive parameters possible.

Cooperative Extension Service

The basic objective of the Cooperative Extension Service is to assist people in making use of agricultural and home economics data in order to be better able to solve problems in agricultural industry, family living, youth, and community needs of Ohio. The aim is to improve the level of living for all citizens through increased understanding and use of up-to-date scientific information.

Research information is furnished by the College of Agriculture and Home Economics, the Ohio Agricultural Research and Development Center (formerly called Experiment Station), the United States Department of Agriculture, and other land grant colleges and universities.

16Orlo L. Musgrave, Professor and Associate Director, Ohio Cooperative Extension Service, Agricultural Administration Bldg., Ohio State University, Columbus, Ohio. Personal interview, Dec. 23, 1970.
Educational information from these sources is disseminated through a professional staff of county and area extension agents and state extension specialists. All are members of the faculty of the College of Agriculture and Home Economics. They work closely with citizens who are members of the county, area, and state extension advisory committee. They also work with local, state, and federal organizations, agencies, and groups in identifying major problems and determining objectives.

A model of current organizational structure is shown in Figure 1. (Note the apparent clean, straight-line relationship from the county level through the area level to the state level. State level specialists are located in academic departments. More will be discussed about this in the analysis chapter.)

The general framework for extension educational programs is established by state and federal laws. Program emphasis is determined within the policies of The Ohio State University, the College of Agriculture and Home Economics, and the Ohio Cooperative Extension Service.

Major areas of program emphasis have been defined in agreement with the Federal Extension Service. These include: (1) Agricultural Industry; (2) Home Economics; (3) Resource Development and Public Affairs; (4) 4-H and Youth Development.

Within these four general categories, the Cooperative Extension Service brings its resources to bear on the educational needs of Ohio's citizens. The Extension is directed by both state and federal laws to concentrate its efforts with both adults and youth regardless of whether they live in rural or urban areas.
FIGURE 1
CURRENT ORGANIZATION STRUCTURE

Dean of College of Agriculture and Home Economics
Director of Cooperative Extension Service

Associate Director
Cooperative Extension Service

College Department Chairmen

State Specialists in Departments

Area Supervisor

Area Specialists

County Agric. Agent
County Home Ec Agent
County 4-H Agent
Agricultural Industry Extension educational work includes elements of improving farm income, marketing, utilization, distribution, and farm supply and assistance to agricultural producers, suppliers of agricultural production inputs, food processors, agricultural credit and finance agencies, and wholesalers, retailers, and consumers of agricultural products. The basic objective is to help agricultural producers, agricultural businesses, and industries.

The degree of emphasis on each phase of the agricultural industry varies in different sections of Ohio and in different periods of time. These variations are affected by changing needs pointed up by research and identified with the help of key leaders. The availability of money to the Extension Service for employing competent staff also has an effect on program emphasis.

A few examples of new programs ¹⁷ will serve to highlight the variety available. These focus on the improvement of existing crops or livestock or initiation of new crops or livestock to help the farmer, agricultural businessmen off the farm, and the ultimate consumer.

(1) Agents in the northwestern section of Ohio have aroused thoughts with new crops. Many farmers are looking for new crops, new markets, and higher net returns.

Enterprise opportunity workshops planned on a multi-county basis has caused additional interests on the part of farmers.

¹⁷CES Miscellaneous Report to Office of Development, The Ohio State University, Columbus, Ohio. December 15, 1970. Other source documents include Annual Narrative Reports of CES for years 1965-70, made available through the office of Dr. Clarence J. Cunningham, Assistant Director for Staff Development and Program Analysis.
In 1970, two farmers had edible bean plots planted in the fields of Henry County. Celery plants are being tested for adaptability on two farms. One producer has eight carrot varieties while looking at the fresh produce market, four acres of squash are being contracted for the first time and peppers were a new contract crop. There were two new strawberry plantings of a total of six acres and fifteen acres of sweet corn was planted. All of this was an increase.

Extension personnel are beginning to explore new markets. A trip to a food marketing corporation in Fort Wayne did show some potential in produce. Roadside and pick-your-own markets are being explored with growers.

Extension agents are trying to keep informed, give new ideas, provide new skills for the economical growth at their respective communities. Industry, producers and agribusiness people all realize the potential and each are attempting to help the area develop.

Southeastern Ohio has many thousands of acres of stripped mine land. This is a great concern to many people. At the present time very little of the stripped land is being used in any way to produce agricultural products. The County Extension Agent, Agriculture, suggested that perhaps the coal company could be influenced to put this land into production for grazing livestock. The idea was pursued and it was agreed that a tour by agricultural leaders and county leaders to this area might have some influence.

Letters were sent to fifty-five people. Thirty-seven people attended the tour. The consensus suggestion was made that the coal company reclaim, seed to the most desirable species, fence large units,
and make this land available for long term lease. After the tour several people wrote to Hanna Coal officials expressing their enthusiasm for such a program. One result of the meeting was that the President of Hanna Coal called Director Roy Kottman to see if they might get some help on conducting some research and assistance with planning.

**Home Economics Extension** educational programs are available in all Ohio counties. These include subject matter; teaching of consumer education; money management; management of time and energy resources; the use of consumer credit; family communications; family and child development; food preparation and storage; food selection, buying, preservation and sanitation; nutrition; textiles and clothing; housing and home furnishings; institutional and large quantity food service; home beautification and others.

Audiences include consumers, youth, low-income families, young homemakers, subprofessionals, and paraprofessionals, volunteers, employed homemakers, graduate home economists, and other professionals. Some examples of new programs follow.

(1) Ten training sessions were held where 1,100 leaders were trained to report to their local groups on the subject, "Crisis in the Family." This is a part of the state family life program.

(2) In Cincinnati, cooperative work has been done with the Kroger food chain to train nutrition aides in better food buying practices. Kroger plans to initiate this program in the rest of the

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18 _Ibid._
counties where the Expanded Nutrition Program is active, perhaps twenty-two states.

(3) A program for inner city youth began in January, 1970, and is rapidly expanding. Groups of low income youth are learning nutrition through food preparation, buying, and preservation. Materials have been developed to train aides, who work with the leaders of these youth groups.

(4) Area home economists have been added to the faculty in the ten area centers. These home economists will assist in program planning and development at the county level and strengthen the consumer education program throughout the state. They will develop and expand liaison work with the School of Home Economics subject matter divisions.

4-H and Youth Development Extension emphasizes project work in agriculture, home economics, natural resources and related disciplines for which the Extension Service has staff to provide professional leadership and educational materials. The primary objective is to help boys and girls ten to nineteen years of age become responsible citizens. This voluntary, informal, out-of-school approach supplements and complements formal schooling.

Local 4-H clubs are guided by volunteer adult advisers. They are assisted by junior leaders, teen leaders and camp counselors. Focus is placed upon career study and counseling, youth programs, leadership development and training. Youth programs include: (1) Technical subject matter project work and training. (2) Social and personal growth through camp, recreation, meetings, demonstrations, and many
other methods. (3) Community service and citizenship training through community projects, Citizenship Shortcourse, Washington, D.C., international programs. The following indicates briefly some of the variety and intensity of thrusts into new programs.19

(1) Senior 4-H self-directed projects in areas of science. Many approaches have been tried including:

a) Special science problems relating to existing projects on an individual and group basis, serving as an "enrichment" to present projects.

b) Science probes taken as the only project by individuals and groups, group project determined by a group and completed as such.

c) Self-directed projects where an individual member writes his own project and completes it with adult guidance and consultation.

(2) 4-H image programs in the past have primarily been concerned with a rural audience, in the areas of specific agriculture and home economics subject matter.

New 4-H programs have expanded to include all youth regardless of place of residence, with a definite effort to include suburban, urban, inner city, black, migrant and disadvantaged youth. Projects and activities have also expanded to include those related to Agriculture, Home Economics and Natural Resources that would be of interest and available to these audiences.

(3) School camping at 4-H camp sites brought over 5,500 boys and girls camped at Camp Ohio this past year. Fifteen other Extension

19Ibid.
owned sites also provided educational camp programs. Camp Ohio extended the camping period to include September, October, April, and May so that fifth and sixth graders could incorporate this lab of learning into their regular school curriculum. Among the school groups were students from the School For the Blind. They were able to identify trees through touch of the leaves, and see animals in the conservation center through touch and smell. School camping can greatly motivate learning and implement text book teaching. Such programs could easily spread to all camping units.

(4) Outdoor education and environmental studies through camping used trained Extension agents in teaching conservation, environmental control, and outdoor education to boys and girls. Workshops held in camp centers added depth and dimensions to educational use of the natural camp setting.

(5) "The FUNashion Look" was presented to 6,000 people. Ten 4-H Fashion Board members (selected for Style Revue participants at the State fair) presented 12 style revues at five shopping malls throughout the state. The girls and clothing specialists taught by demonstrations how to achieve the well dressed look the fun way.

(6) School embryology projects helped reproduction to be taught to elementary school children through the development of chick embryos. An Area Extension Agent, Poultry, held a training meeting for elementary teachers who were interested. Classrooms were equipped with incubators in which Japanese quail eggs were placed. Children, under the guidance of their teachers, watched what happened and were taught about reproduction. Students outside the classes involved
became greatly interested. Teachers indicated this "real life" experience added greatly to their classroom textbook teaching.

Present plans include expanding this type of Extension education to horticulture, small animal, and other related areas.

(7) A money management correspondence course "Speaking of Money With Youth" was developed for use by volunteer leaders.

(8) The teen leadership concept was expanded. A junior leader correspondence course was developed and studied by over 1,000 young people in one area of the state. It has been evaluated and will be printed for state-wide use. Junior leaders have expressed the desire to go beyond this concept to an area of leadership where they have more actual leadership responsibility. Teen leadership seems to be an answer to this desire. Experience shows that boys and girls look up to and learn from older teens very easily. The involvement of teen leaders with disadvantaged audiences in urban and inner city areas has multiplied youth participation.

(9) "Focus on Leadership", a five lesson correspondence course for new 4-H leaders, was printed and used for the first time in nine areas of the state. A 4-H staff member is conducting research to evaluate the effectiveness of this specific teaching method.

(10) For the first time, Ohio participated in the "4-H Teen Caravan" program. Six young people, 17-19 years of age participated in orientation sessions, worked on language study and are now having a two month family living educational experience in Japan (4) and Norway (2). One former Ohio International Farm Youth Exchange delegate is serving as group leader to the Teen Caravan group currently in Spain.
Newsletters written by these youth are being reproduced in home town newspapers and distributed to groups so that an understanding of another culture can be shared.

Resource Development and Public Affairs Extension assistance is given in those subject matter areas which are closely associated with agriculture and home economics. Resource people are available in the College of Agriculture and Home Economics for educational programs in community development, agricultural policy, soil and water conservation, environmental improvement, outdoor recreation, tourism, natural beauty, wildlife management, forestry production and marketing, and safety and emergency preparedness.

Major effort is directed toward Ohio's rural communities. Many problems relating to agriculture and home economics in the non-rural sectors of the state also receive educational assistance from Extension sources.

Examples\(^{20}\) of seminars and workshops carrying new programs to the people are as follows:

(1) Four counties participated in the community development seminar program bringing to forty the number of counties that have held seminars in the last three years. Counties involved were: Meigs, Jackson, Sandusky and Paulding. The two-day seminar provided ten to twelve hours of instruction relating to the priority problems that were facing the leaders of the county. Problems were delineated for each seminar by six or eight local leaders who served on a program planning committee.

\(^{20}\)Ibid.
(2) Eleven counties participated in seven one-day tax workshops during the Spring of 1970. These included: Huron, Erie, Sandusky, Wyandot, Seneca, Crawford, Hardin, Knox, Fairfield, Hancock, and Putnam. Top resource people from the Cooperative Extension Service, the rest of the University, and from government and industry led the discussions. Fifty to eighty-five people attended each of the one-day (five hour) state and local taxation workshops. The objective was providing fifty to seventy-five key leaders in the county information relating to the alternatives for restructuring the tax system and an analysis of the impacts of each alternative. The workshops were well received by the participants and the mass media gave the presentations good coverage. Several additional workshops are scheduled for other counties.

**Cooperative Extension Service Programs For the Inner City** began in late 1969. State food economics specialists developed a series of food store management sessions for inner city food businessmen in Cleveland. Representatives of the Cleveland Growth Board, dissatisfied with their accomplishments in presenting general management sessions to a cross section of businessmen, contacted the specialists regarding the possibility of designing a program on food store management for inner city food retailers. A meeting was arranged with the Greater Cleveland Growth Corporation, Cleveland Business League, Small Business Administration, Afro-American Cooperative Society, Cuyahoga County Cooperative Extension Service, Cuyahoga Community College, and the food distribution specialists from the Ohio Cooperative Extension Service.

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21Ibid.
Needs of the inner city food businessman were explored and a tentative outline was agreed upon. A ten-session course was outlined for inner city retail food store managers with the general purpose being to help them operate more profitably. It was deemed essential to direct emphasis toward profitable operations because the owner-operators generally had little experience and the rate of failure for operators with little experience in the inner city has been very high.

The specialists visited a number of the potential participants in their own business operations to get more fully acquainted with the clientele and their needs. It was discovered that the operators had little previous food store experience. Businessmen participating in the program all were black and had been in business from a few months to eighteen months. One individual was just in the process of preparing to go into the food business.

In addition to the classroom sessions, follow-up was made in their own operations discussing their own business and operational problems and opportunities. All the participants were enthusiastic and their general comments were, "Why didn't I find out that this assistance was available sooner?" or "It's just too bad that I didn't know you fellows before I went into business... You sure have made it easier for me." and "I just wish that I had received this information sooner."

The Expanded Nutrition Education Program was launched January 1, 1969, with funds provided to Ohio from the United States Department of Agriculture.  

Ibid.
Ohio's allocation for January 1, 1969 through June 30, 1969 was $364,000 which permitted starting the program in sixteen counties. The eight most populated counties hired one senior aide and ten full-time equivalent aides while the next eight most populous counties hired three full-time equivalent aides.

A feature of this program is that the nutrition teaching is done in low income target areas by subprofessional aides who are trained and supervised by the county home economics agent. The aides work on a one-to-one basis in the homes of the low income homemakers giving major attention to assisting the homemaker in providing a better diet for her family. Subject matter taught includes food buying, menu planning, food preparation and service, food storage and sanitation, the use of food stamps and other nutrition information that will help the homemaker feed her family a more adequate diet on her very limited budget. Methods used include demonstrations, buying tours, discussions, visuals and home visits.

After July 1, 1969, funds for the Expanded Nutrition Program became appropriated funds provided by Congress, and Ohio expanded its program by adding eighteen new counties each of which now has two full-time equivalent aides supervised and trained by the home economics agent. Ohio's allocation for fiscal year 1969-70 was $1,045,033.

A new feature of the program is the youth component which was started in late November after Congress designated 25 per cent of the funds to be used to improve diets of youth through 4-H type activities to be carried on in cities and towns. Nutrition aides served as teachers for the volunteer leaders working with youth. The entire
county staff is involved in the Expanded Nutrition Program. New materials are being developed for use by both adults and youth.

Two hundred Disadvantaged Youth Scholarships were made available through the cooperation of the Sears Roebuck Foundation. This money ($10 each) was designated to aid in sending disadvantaged youth (urban and rural) to traditional county 4-H camps and opportunity camps at either Camp Ohio or Kelley's Island. Twenty-six counties applied for 602 scholarships. The scholarships (200) were funded to boys and girls in the following counties: Montgomery, Crawford, Erie, Lucas, Ottawa, Seneca, Belmont, Guernsey, Monroe, Perry, Washington, Jackson, Lawrence, Vinton, Fairfield, Franklin, Morrow, Allen, Logan, Brown, Clinton, Highland, Cuyahoga, Coshocton, Tuscarawas, and Wayne.

Pilot projects were also provided through Sears Foundation for special pilot 4-H programs with disadvantaged audiences. The $1,750 was designed to serve as "seed" money that would be supplemented with local funds to start specific constructive educational programs.

Recreation Leadership Training With Blacks (both adult and local club youth leaders) was conducted in Summit County. Persons involved in this learning experience are leaders in their own club groups. Plans are underway to expand this program to include Lucas, Hamilton, and several other counties.

\[23\] Ibid.
\[24\] Ibid.
Opportunity Camps\textsuperscript{25} for 200 disadvantaged youth from inner city and urban areas (including some parents and local leaders) are held at Camp Ohio and Kelley's Island. Teen leaders will assist. Central and northeastern counties are participating.

An Expanded Nutrition Program, youth component,\textsuperscript{26} is under way in thirty-four counties. To date 2,800 youth are participating. Much of this program has been accomplished through the Extension Home Economics program. An assistant state 4-H leader with competency in working with disadvantaged youth has been added to the state staff. He and other personnel will be working with county 4-H and home economics agents to further develop the youth component phase of the Expanded Nutrition Program. (Note this organizational structure. It will be referred to in the analysis chapter.)

The faculty positions on a full time equivalent basis totaled 436 divided among 259 county extension agents located in the eighty-eight county extension offices, sixty-three area extension faculty in the ten area extension centers, and 114 state specialist and administrative personnel located on The Ohio State University campus. Faculty on the campus are located in ten departments, the School of Home Economics, and the School of Natural Resources in the College of Agriculture and Home Economics. (Staff personnel are listed in Appendix C.)

Semi-professional employees including technical assistants and nutrition aides totaled 196. These persons complement and supplement the regular faculty members in direct teaching.

\textsuperscript{25} Ibid.
\textsuperscript{26} Ibid.
Administrative Science Extension

A general summary of the activities of the College of Administrative Science during the period July, 1969 through June, 1970 lists a total of 108 programs attended by 9,953 participants. Sixty faculty and professional staff were employed full time. Fifty-four professors in the college participated in the development, organization, directing, and instructing in these programs. Thirty-three faculty of other colleges within the University taught in these programs.²⁷

Objectives, policies, and general procedures of the College's Continuing Education Division were approved by the College Faculty Senate. One major policy change permits provision of continuing education programs to individual private firms or single agencies with the conditions that requests by groups such as trade associations, for example, will take precedence over requests by a private firm and requests by firms willing to admit others will have precedence over those desiring to limit attendance to their own personnel.

Management Development Programs totalled forty-eight, attended by 2,562 participants, during 1969-70. Campus tension and the student strike during the May-June period caused the cancellation of seven programs including the annual Supervisors' Conference usually attended by approximately 1,400 people.

Several new programs were introduced. These include "Current Concepts in Engineering Management" and an "Industrial Development Course." This course was offered in cooperation with the State.

²⁷Annual Report, College of Administrative Science, The Ohio State University, Columbus, Ohio 1970.
Development Department and attended by twenty-six industrial developers both in the private enterprise and civic or public sectors of the community. The program dealt with the following subject matters:

The College sponsored the first Midwest regional conference of the American Institute for Decision Sciences in which papers authored by twenty-eight scholars from nineteen universities were presented. Examples of the subject matter include: "Behavioral Model for Rate of Return," "DCSIM Computer Case," "A Distribution Center Location Simulation," "A Comparison of Layout Algorithms," "Decision Making in Information Economics," "The Effect of Market Structure," and others.

The Insurance Company Presidents' Symposium was offered to provide insurance company presidents the opportunity to participate with academic financial theorists in a day's discussion of key economic and financial issues and their impact on the insurance firm. It is planned to offer this program annually.

Financial Management For Savings and Loan Executives was a new two phase program focusing on planning and controlling change in savings and loan organizations, money and credit markets, using the computer for savings and loan management, marketing management, etc.

Women's Management Conference was designed for women in management positions. Women managers (153) from states throughout the Midwest attended this annual program.
The Real Estate Appraisal Course was developed by College faculty in cooperation with the Society of Real Estate Appraisers.

The Nursing Home Administrators Program attracted 143 managers of nursing and convalescent centers. The program was designed to improve and update the professional management knowledge and to raise professional standards of long term care facility administrators.

The American Automobile Association Insurance Seminar was presented to twenty-five Association club managers under joint sponsorship of the College and the Association. From this initial effort, it is anticipated that additional insurance and finance oriented programs will be developed for American Automobile Association management.

Assistance was provided in the hosting of the Midcontinent East Region Annual Meeting of the American Association of Collegiate Schools of Business.

Continuing education services in logistics management were provided to the Air Force Institute of Technology by the Division's Defense Management Center. These programs are offered primarily to government career civil service management personnel in areas such as contract law, contract administration, procurement, management information systems, etc. Thirty-one different programs involving 688 weeks of instruction and attended by 3,923 participants were provided at an approximate contract value of $964,000.

The Logistics Management Advancement Program (Log-MAP) provides educational services under contracts primarily in the field of procurement management for organizations other than the Air Force Institute of Technology.
Programs were offered to the Department of Health, Education, and Welfare; National Aeronautics and Space Administration; Agency For International Development; University of Alabama; Navy; and the Society of Logistics Engineers (Philadelphia). Seven programs were attended by 1,500 participants and involved 100 weeks of instruction. In addition, the Logistics Management Advancement Program conducted a study beginning October, 1969, under contract with the National Aeronautics and Space Administration to develop a career progression program for that agency. The contract value of the programs for the period amounted to $295,000.

Labor Education and Research Service expanded into regional offices. It was facilitated by an annual grant of $100,000 from the Ohio Board of Regents. Offices were opened in Akron, Cincinnati, and Toledo. In terms of program offerings, the Service again offered its state-wide Union Leadership Program in nine cities. In all, 383 students were enrolled in the program with 303 (or 79%) receiving certificates. This year, there were 217 first-year students, 74 second-year, 56 third-year and 36 fourth-year students enrolled in the program.

Special programs were expanded to a total of 1,503 participating students. In an effort to reach the labor movement throughout the state, the Labor Education and Research Service concentrated its efforts on conducting programs with central labor councils. Of the fifty-five existing labor central bodies, thirty-eight were personally contacted by the Service staff, which resulted in twenty-four programs with sixteen central bodies. These programs included seven buddy training courses for the hard-core unemployed accepting jobs in our six.
major cities. In addition, twenty-two other central buddies are planning new programs. The Service also conducted nineteen local union programs with 558 students enrolled, and eight conferences with 545 enrolled. Staff members also participated as representatives of the Service in speaking or teaching roles before some 3,190 members of the labor movement or the general public.

As a research service, it conducts a program of research and materials development. During 1969-70, three projects were continued from previous years: an analysis of Ohio AFL-CIO members, an evaluation of the union leadership program, and an inquiry into officer turn-over in local unions.

The major emphasis on the Public Administration Programs during 1969-70 was the Ohio Management Advancement Program (MAP) for middle management employees of state government. This program was financed by state appropriation and a Title I, Higher Education Act of 1965 grant by the Ohio Board of Regents. During the year, 870 instructional days were conducted involving 214 middle management employees in seven two-week residential programs.

A proposal called for the establishment of a new position, Director of Public Management Programs, to be primarily responsible for the development of a long range continuing education plan to expand the quantity and variety of university level continuing education opportunities for state and local employees. This position was filled in February, 1970, and the plan was completed June, 1970.
The School of Social Work has eleven special institutes planned, four of which have been completed. These include working with children in residential child care centers, creative writing for social workers, law and social work, and advanced social work practice. Total attendance at these programs was seventy-seven participants.

Education College Extension

Approximately forty workshops, seminars and institutes were funded through efforts of the College, external cooperating agencies, and state and federal government. Approximately 20,000 individuals attended. The broad scope of these activities included short courses, seminars, and conferences offered on an annual basis or based on some felt needs expressed by the College or by some cooperating agency.

A highly successful series of conferences relating to "motivation" sponsored by the Curriculum and Foundation Faculty was held.

The College of Education Radio-Telephone Network completed its sixth year of carrying in-service programs to Ohio schools with six programs being received in sixteen school systems. Broadcasts on a monthly basis represented the following subjects: "The Middle School", "The Merits of the Comprehensive High School vs. The Merits of the Vocational-Technical High School", "Student Tutoring Program", "Student Activism", "Collective Negotiations", "Guidance and Counseling in the Elementary School."

Future plans include a re-shaping of the field relation's component as it relates to continuing education activities. This new

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28 Donald P. Anderson. *Annual Report, Continuing Education College of Education, The Ohio State University, Columbus, Ohio, 1969-70.*
direction will place strong emphasis upon the continuing education aspect of the College as it relates to the various populations it serves. The College is also making an assessment of the Radio-Telephone Network in an attempt to find avenues for improved utilization of its programs.

**Engineering College Extension**

During fiscal year 1969-70, activities included seventy conferences, workshops and short courses attended by approximately 6,260 practicing engineers, scientists, technicians, engineering managers and teachers.  

The College continued its policy of following a broad and varied approach in response to the needs of the profession. This response included a variety of regular annual short courses and conferences, contractual offerings co-sponsored with outside agencies, and non-recurring programs conducted in response to requests from various segments of the profession.

The most significant undertaking of the College was hosting the 78th Annual Meeting of the American Society for Engineering Education. Approximately 2,400 engineering educators and industry affiliates and their families (3,700 off-campus registrants) participated in over 370 technical sessions and planned events that occurred during the week.

The regular program of annual short courses and conferences included twenty-five events, which were attended by 2,816 persons.

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29Richard D. Frasher. *Miscellaneous Report, College of Engineering, The Ohio State University, Columbus, Ohio, December, 1970.*
These included twenty-one short courses and four conferences, the Annual Highway Conference; the Annual Roadside Development Conference; the Invitational Conference on Engineering; and the Annual Conference for Engineers and Architects.

There were five programs conducted on a contractual basis which involved co-sponsorship and/or monetary support from non-university agencies. These included two courses dealing with traffic safety engineering techniques, a training school for housing technicians, and a special course entitled "Highway and Transportation Programs." This latter course was co-sponsored by the Council of State Governments and the National Legislative Council. It was one of eleven such offerings on different topics conducted at leading universities around the country as an "in-service" training program for state legislators. The combined attendance in all four contracted programs was 166. Also, as part of a regular contract with the U.S. Office of Civil Defense, a series of thirty-eight courses on radiological defense were conducted at nineteen locations around the State of Ohio and were attended by 783 persons.

A new offering, initiated at the request of the National Cash Register Company, was to help technical managers keep abreast of major advances in engineering and science. This six-week residential program was entitled "New Technologies for Engineering Managers." Participants spent approximately 230 hours attending lecture and demonstration sessions dealing in the disciplines of modern mathematics, basic science, materials of engineering, computer technology, engineering analysis and design, and management decision making. The teaching
staff consisted of twenty-one leading Ohio State University faculty. Twelve of the attendees were representatives of the National Cash Register Company and two were from the Federal Government.

Two additional functions representing participation by ninety-five off-campus persons were the conference, "Systems Analysis for Great Lakes Research," conducted through the Department of Civil Engineering, and a "Flight Training Clinic" conducted by the Department of Aviation.

The College of Engineering plans to continue its emphasis on continuing education while probing and seeking new and better techniques to broaden and improve its program.

Law College Extension

Ohio is a national leader in Continuing Legal Education. The current program began with the incorporation in 1961 of the Ohio Legal Center Institute as a non-profit entity by The Ohio State University, the Ohio State Bar Association and the Ohio State Bar Association Foundation for the dual purpose of providing a state-wide post-admission to the Bar education program and a program in basic legal research. It has been supported financially by these organizations and conference enrollment fees.

Although the Institute is housed in the Ohio Legal Center which is on University property and three members of the faculty of the College of Law of The Ohio State University sit on its Board of Trustees, no University or publicly appropriated funds have been

30 Kuhfeld, Annual Report.
available to the Institute to finance the presentation of its Continuing Legal Education program. The Ohio State University's substantial contribution is the providing of the physical facilities for most of the Columbus conferences.

This College, in cooperation with the other eight law schools in Ohio and the several local bar associations, creates and presents a very extensive curriculum of post-admission training. It conducts its activities throughout the state for the convenience of the practicing bar.

Annual courses are offered on subjects in which current knowledge is essential to the general law practice. The content of each course is altered each year to remain current with latest court decisions and statutory law. A series of basic courses is being developed for repetitive presentation to meet the needs of newly admitted lawyers or of those lawyers who are new to a basic field of study. In addition, courses were prepared and given in subjects which present a compelling current interest based upon important judicial decisions or statutory changes. These numbered eleven different subjects.

Thirty separate Continuing Legal Education conferences, each generally of two days duration were held in ten different cities in Ohio. They were attended by 4,059 persons. Eighty-one Ohio counties were represented.

The Institute conducted a highly successful experiment in legal education. A thirty-hour course of instruction in anti-trust law was offered over five successive days. The intensified anti-trust law was taught by nationally prominent practitioners who also participated
in informal evening seminars. Participation was limited to fifty enrollees. They received the equivalent work of an academic quarter in one week. The eastern half of the United States was represented. Based on minimum standards, the value of the time expended by those in attendance exceeded $50,000. Such a price demands excellence and the achievement of the participants' objectives. The response to the course adds a new dimension to the rapidly developing field of post-admission education.

The Institute also conducted a conference of Ohio Common Pleas Judges at Hueston Woods over a three-day period. One hundred six judges attended. Lectures were given in such divergent fields as the discussion of disruptive trials and the handling thereof, innovations on the rules of evidence, and the trial judge's responsibility in the areas of sentencing and parole. At the request of the probate judges of Ohio, the Institute prepared training materials for use in seminars for probate judges of the state.

The Institute has developed a new and valuable form of legal literature. Each course features a book written especially for the course by the participating lecturers. The materials are printed in a 6½" x 9" looseleaf binder, the size of the standard law book, and are distributed at the opening of the course. The several series of Institute publications have become standard items in law libraries, both public and private. Several out-of-state libraries subscribe to the Institute publications, but the Institute remains committed to providing a course of study and avoids publishing independently of course work.
The Institute continued its participation in the Criminal Law Project of the Legislative Service Commission.

Conferences and instructional programs dealing with the newly adopted rules of civil procedure will become an important part of the seminar program in the coming year.

The director of the Institute serves as president of the Association of Continuing Legal Education Administrators, an international association of those who are active in directing this phase of legal education, and this in itself is a recognition of the excellence of the program which is the subject of this report.

College of Medicine Extension

The Center for Continuing Medical Education has been concerned with two major areas of postgraduate medical education: the on-campus conferences, and the broadcasts (radio and television) of the Ohio Medical Education Network.

The past fiscal year has seen the successful completion of forty-three on-campus conferences for physicians, nurses and paramedical personnel. The conferences, generally one to three days in length, have recorded total attendance of nearly 2,500; not including personnel from Ohio State University. More than 1,200 physicians attended the conferences last year, many of which were authorized by the American Academy of General Practice for continuation study credit hours.  

The Ohio Medical Education Network, in its eighth year of operation, broadcast 110 hour length two-way discussions via the

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31 John C. Barton. An Overview, Center For Continuing Medical Education, The Ohio State University, Columbus, Ohio, December, 1970.
facilities of thirteen FM radio stations and involved the medical staffs at more than sixty hospitals in Ohio and surrounding states. These "live" programs are designed to help update concepts in the community practice of medicine. Registered attendance for these broadcasts totaled nearly 14,000.

Another avenue of service by the Ohio Medical Education Network was twenty-eight hour length two-way programs in nursing education. These were broadcast through thirteen FM stations and involved the nursing staffs of fifty-four hospitals in the four state area. Registered attendance for these programs totaled 10,000.

The fifth year of contribution by the Ohio Medical Education Network was "television with two-way audio" programs. Two "live" hour length programs were broadcast originating at WOSU-TV and broadcast through the combined facilities of three educational television stations and eight cable television services. This distribution made possible the participation of the medical staffs assembled at fifteen hospitals scattered throughout Ohio. The programs dealt with the complications of fractures and the management of amputees. Registered attendances for the programs totaled more than 1,000. In all of the foregoing radio and television programs, it must be recalled that many more physicians and nurses and interested members of the general public hear and view these programs at home, at the office and in their automobiles; but are unable to be counted in the registered attendance figures.

The Continuing Education Program of The Ohio State University College of Medicine has been granted full approval by the American
Medical Association's Council on Medical Education as the result of a
two-day site visit conducted by a survey team.

Future directions point to growing involvement in the activities
and research of the Ohio Regional Medical Program, the Allied Medical
Professions and numerous other agencies also working toward the
ultimate goal of the Center for Continuing Medical Education, that of
improved medical care for the people of Ohio.

College of Optometry Extension

Six successful continuing education courses were held this past
summer. Practicing optometrists from Ohio and surrounding states were
in attendance. The instructors for the courses were all members of
the faculty of the College of Optometry. The response to the courses
this year was very good. A similar number of courses is anticipated
for next summer.32

Courses were directed toward the practicing optometrist and
designed to better acquaint him with the new procedures, techniques,
and therapeutic methods that are available. The knowledge of the
art and science of optometry is rapidly increasing creating a great
need for continuing education courses in optometry. The College of
Optometry feels that it has a primary responsibility to contribute to
this need. Members of the College faculty are frequently called upon
to participate in continuing education courses at state, regional and
national optometric organizations.

32Annual Report, Continuing Education Division, Office of
Educational Services, The Ohio State University, Columbus, Ohio, 1969-70.
College of Pharmacy Extension

The College of Pharmacy supports a variety of programs throughout the State of Ohio. These are arranged through Pharmacy Extension Services often in cooperation with one or more of the forty local pharmaceutical associations located in Ohio.33

One example of providing continuing education was the Academy of Pharmacy of Central Ohio Postgraduate Seminar, "How Pharmacists and Physicians Can Cooperate In: I. Prevention and Treatment of Virus Diseases; II. Treatment of the Psychiatric Patient at Home." Part II of the seminar was designed to cover problems in drug therapy of psychiatric outpatients and also to give the seminar participants a better understanding of this type of patient. Speakers for the second half of the program were drawn from the College of Medicine Department of Psychiatry as well as from the College of Pharmacy faculty.

The Academy of Pharmacy of Central Ohio Seminar was held for two hours, one night a week for six consecutive weeks. This method of presenting continuing education has proven to be very popular.

Pharmacy Extension Services in cooperation with the Academy sponsored a second postgraduate seminar in the Spring of 1970. This second program, "Merchandise Management for Pharmacy Practice" was a series of five sessions of lecture-discussion and case studies relating to management problems confronting the practicing community pharmacist.

33 Robert S. Buerki. Miscellaneous Report, College of Pharmacy, The Ohio State University, Columbus, Ohio, September, 1970.
Extensive use of the case method of study was made to actively involve the seminar participants in the program.

Pharmacy Extension Services also cooperated with the Cleveland Society of Hospital Pharmacists to present a one-day program in cardiovascular disease for pharmacists of the Cleveland area. Participants in the lecture-discussion program heard speakers from The Ohio State University Colleges of Medicine and Pharmacy discuss the problems of drug therapy for hospitalized cardiac patients.

The Miami Valley Pharmaceutical Association cooperated with Pharmacy Extension Services to present a program for pharmacists in Dayton and the surrounding area. A coordinated program on the pharmacological basis for adverse drug reactions was presented and related to how pharmacists can play a greater role in preventing the occurrence of adverse drug reactions.

The Fifteenth Annual Ohio Pharmaceutical Seminar, "Drug Abuse in Today's Society," attracted over 250 community pharmacists, and manufacturers' representatives from a variety of educational and health related institutions. The seminar program provided an understanding of the pharmacology of drugs commonly misused today, as well as a thorough examination of the social issues surrounding the problem of drug abuse. The pharmacology topics were covered by Pharmacy faculty and experts from the areas of law enforcement, education, psychiatry, and rehabilitation. Because of the interdisciplinary nature of the program and the widespread interest in the problem, this year for the first time, the program was opened to persons other than pharmacists.
The College of Pharmacy remains the headquarters for the Council of Ohio Colleges of Pharmacy, a cooperative organization of the four colleges of pharmacy in Ohio: Ohio Northern University, The Ohio State University, The University of Cincinnati, and The University of Toledo. A new edition of the Program Topics and Speakers List was published this past year to update the listing of more than 150 continuing education lectures available from these four colleges.

The Council of Ohio Colleges of Pharmacy continues to cooperate with the Ohio State Pharmaceutical Association in presenting one-day programs to pharmacists at various locations throughout the state. This past year six of these programs were given at locations designed to be accessible to all pharmacists in the state.

The Council and Pharmacy Extension Services have jointly sponsored a state-wide mail questionnaire survey of all registered pharmacists to learn more about what is needed to improve continuing pharmaceutical education in Ohio. Results of the survey are currently being tabulated and will be available in the near future.

In addition to these new projects, Pharmacy Extension Services continues to cooperate with the local pharmaceutical associations in preparing and presenting continuing education events. Project planning and evaluation are enhanced by the use of electronic data processing techniques in analyzing questionnaires completed by seminar participants.

College of Veterinary Medicine Extension

Various short courses and workshops for veterinarians interested in expanding their professional knowledge and skills were presented by faculty members along with private and public practitioners.
The Ohio Veterinary Medical Association has wholeheartedly endorsed the continuing education program and has requested that the College continue to help them meet their ever present challenge of modern medical practice. 34

The United States Department of Agriculture's interest in university based training for its processed meats inspection personnel has expanded the University's continuing education activity. A contract provides an annual operating budget of $355,000 to supply training in specified subject areas and to improve the inspector's ability to cope with his everyday work problems. Instruction was conducted cooperatively by the University's Departments of Veterinary Preventive Medicine and Animal Science. This training contract has been extended through June, 1971. Candidates for training are selected from the entire nation and its territories. To date, forty-two states and Puerto Rico have been represented.

The future continuing education plans for the College of Veterinary Medicine are oriented to assist the profession in reaching their ultimate goals and challenges and for providing educational programs for persons working with the profession.

Author's Note: There appears to be a growing interest in the Colleges of Medicine, Veterinary Medicine, Pharmacy, and Optometry to combine their mutual requirements under a new extension thrust titled "Health Science." It is just reaching the serious discussion stage at this writing. 35

34 Dean's Report, Alumni Relations. College of Veterinary Medicine, The Ohio State University, Columbus, Ohio, December, 1970.

35 Personal interview. Respondent chose to remain anonymous. The Ohio State University, Columbus, Ohio, February 22, 1971.
Regional Campuses

Continuing education on the regional campuses was greatly expanded during 1969-70. At Lima, Mansfield, and Newark, continuing education specialists were hired and these campuses offered a total of twenty-six courses; eight at Lima, five at Mansfield, and thirteen at Newark. Course registrations totaled 383 at Lima, 379 at Mansfield, and 410 at Newark. A continuing education specialist has been hired at the Marion campus.

Courses covered such subjects as management, real estate, insurance, investments, ecology, zoning, oral communication, minority groups, art and music appreciation, psychology, and the restoration and care of antiques. Ohio State University faculty taught fourteen of these. Plans for 1970-71 include repeating some of the courses offered and expanding into other areas on each of these campuses. The regional campuses appear eager to bring these non-credit courses to their respective communities and to contribute to the services The Ohio State University provides to the citizens of Ohio.

General Continuing Education

Continuing Education at The Ohio State University is guided by the statement of objectives and policies approved in April, 1967, by the Administrative Council. The state of philosophy is as follows:

The increasing complexity of modern-day life, produced in part by the staggering rate of growth of man's knowledge and the increased standard of educational expectation, has clearly demonstrated that education is a life-long process. The conviction has gained

36 Annual Report, Division of Continuing Education.
37 Ibid.
momentum within the historical framework of the Land Grant Movement which has emphasized a balance among teaching, research and service. Subscribing to this principle, The Ohio State University, through its Division of Continuing Education of the Office of Educational Services, seeks to serve qualified adults by making the relevant research and teaching talents of the University readily available.

The Ohio State University seeks to build effective relationships within the University which will permit the optimum utilization of its unique resources in the development of state-wide continuing education programs for the improvement of the various professions. The University is also concerned with identifying public problems and public needs, focusing its skills and resources upon these needs and then translating these insights into educational programs throughout the state in content areas where the University can make a unique contribution. The Ohio State University is also committed to the development of effective inter-university continuing education programs with other state and private institutions of higher education in Ohio.

The following objectives were set forth for continuing education programs at The Ohio State University and encompass both courses for credit for non-degree oriented adults as well as education programs without academic credit.

(1) The primary objective is: To provide university-level continuing education programs tailored to the economic, social and cultural needs of society consistent with the overall objectives, resources and unique capabilities of the University.

(2) More specific objectives are:

a. To provide learning opportunities for which the University has special competence to those engaged in the various professional areas.
b. To provide educational assistance to public officials, industrial, business, labor and other community leaders to help them to deal effectively with community related problems.

c. To provide university-level educational assistance to specialized organizations, agencies and groups to help them to achieve their educational goals.

d. To provide learning opportunities for adults who wish to further their personal development through university-level programs.

(3) To achieve these objectives, the University strives:

a. To provide a climate and organizational framework which will facilitate the contribution of the faculty to the University continuing education program.

b. To provide a means through which The Ohio State University can cooperate with other state and private institutions of higher education within Ohio in continuing education programs.

c. To conduct research and development programs directed toward designing, testing and evaluating innovative approaches in the field of continuing education.

d. To serve as a laboratory and a mechanism for the identification of problems requiring research effort and to interpret these problems to appropriate personnel in the University.
e. To provide an opportunity for potential participants to contribute to the identification of continuing education program needs.

f. To develop an organizational structure which will provide for effective utilization of University continuing education resources and place the University in the position where it can attract funds for continuing education from both public and private sources in order to enhance the University's educational assistance to its various publics.

The Division of Continuing Education is the administrative unit designated to provide University-wide leadership in encouraging and coordinating the activities of the various departments, colleges and other administrative units to achieve the University's objectives in continuing education. Responsibility for programs initiated within departments, schools, colleges or other administrative units rests with the appropriate faculty who administer such programs through their administrative units in coordination with the Division of Continuing Education. The specific functions currently assigned to the Division of Continuing Education include:

(1) Coordination of all University continuing education programs (credit and non-credit).

(2) Counseling and registration of all adult students pursuing credit courses but not currently working toward a degree.

(3) Coordination of all facilities used by personnel conducting continuing education programs and University related events.
(4) Conducting the Technical and Business Services Program.
(5) Conducting of the Urban Extension Program for Central Ohio.
(6) Conducting the non-credit courses for adults of the metropolitan Columbus area.
(7) Management of the Center For Tomorrow Building located at 2400 Olentangy River Road, Columbus, Ohio.
CHAPTER IV
THEORETICAL ORGANIZATION MODELS,
THEIR PRESENTATION AND ANALYSIS

The literature indicated several schools of thought as to the future of the Extension Service generally. These seem to fall at opposite poles. Typical questions posed were: Should the Cooperative Extension Service provide technical information that is current and decisive, or should it not take sides on issues? Should it provide leadership in coordination and planning, but delegate action and implementation to others thereby avoiding criticism, complaint, or risk of failure? In other words, should the Extension Service take active risks or should it minimize its exposure still being careful not to lose the traditional image of the Extension Service being change oriented?\(^3^8\)

The literature also indicates several schools of thought as to the role of the university in social change. Should it take leadership and provide a vocal forum for change but be limited to a level of theoretical dialog? Or should the university become a real activist of change joining in with pressure groups to move society?

The literature indicates further paradoxical positions as to the role of the university in its urban setting. Should a large university stay aloof within the intellectual spire, or should it

\(^{38}\)Faculty/Graduate Student Seminar. Department of Agricultural Education, The Ohio State University, Columbus, Ohio, February 25, 1970.
recognize that it is an integral part of that local economy financially, sociologically, etc. including politically? (The financial impact of Ohio State University on Franklin County is estimated at $271 million annually.)

Stanley Moses in his landmark paper "The Learning Force: An Approach to the Politics of Education," predicts a collision course is developing between formal and informal education. The "learning force" he says refers to all those participating in education activity in "the periphery" as well as "the core." The core emphasizes commitments to sequential programs over long periods of time and which also establish standards designed to exclude those without the credentials of the core.

The periphery refers to the participation in a variety of educational activities ranging from vocationally oriented programs in business, government, the military, proprietary schools and anti-poverty programs to the cultural and leisure oriented program in regular core institutions, religious education, television correspondence courses and private associations.

Author's Note: If Moses is correct in predicting a collision, Extension would appear to be located in "no man's land" between the core of land grant university institutions and the periphery of informal continuing education.


The Ohio State University serves many publics—students, former students, politicians, government, industry, business, faculty, community, etc. More specifically the Cooperative Extension Service serves many audiences. Figure 2 attempts to classify these user groups. However, it is more meaningful in reality to look at this figure as a kaleidoscope which when adjusted only slightly becomes quickly blurred; group delineations melting one into the other. Nonetheless, it does indicate the complexity that seems to grow in intensity rather than diminish. It is in this dynamic environment then, that concepts proven from other disciplines would appear pertinent to higher education generally and Extension services in particular.

The very penetrating question again can be raised, who does the Cooperative Extension Service serve? The Battelle Study probed this question and diagrammed Figure 2. Traditionally there have been many answers to this question as discussed in Chapter II. While it is true that audiences need to be defined, there is a very high risk of "trying to be everything to everybody."\footnote{1}\footnote{1}

Furthermore, even if great effort is expended in identifying traditional audiences, what good are the results if, in fact, parameters of those descriptions change too. Bennis and Slater's book title testifies to this fact, "The Temporary Society."\footnote{2}\footnote{2} There are numerous publications on change in society, change in technology,
FIGURE 2

AUDIENCES SERVED BY
OHIO COOPERATIVE EXTENSION SERVICE

Source: Battelle Memorial Institute
behavioral adaptation, etc. In other words, organizations that get caught up in very dynamic environments have an increasingly difficult time identifying problems let alone prescribing solutions.

For example, the author wrote a paper utilizing a great variety of indepth economic literature to build a broad base of assumptions about agricultural marketing and policy. This included such things as only 6 per cent of our entire population is now classified as farmers. This has been a steadily declining situation for many decades. Only about 10 per cent of these farmers produce about 90 per cent of all farm output. They are characterized by high productivity, big business, high specialization, large capital requirements, integration, mechanization, off-farm service, and well educated farmers and suppliers. The question again becomes, "Are the segments of agriculture receiving Cooperative Extension Services those that need it most?" Conversely, if every segment needs Extension Service, how are the priorities developed? American agriculture is dynamic. The Extension Service would appear to be in the centrifuge of change.

**Systems Analysis Approach**

American technology has helped industry and government to cope with and find opportunities in dynamic environments. The basic approach is called "The Systems Approach". The design and use of PERT (Plan, Evaluate, Review Techniques) systems has been proven in defense industries. Systems engineering put man on the moon. As mentioned earlier, simulation model systems can forecast a new product,

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its markets, its potential profit without the first prototype being built. The total marketing concept is a system proven in industry. The marketing concept has been placed into a classic description by the Ohio State University Faculty of Marketing: "Marketing is the process in a society by which the demand structure for economic goods and services is anticipated or enlarged and satisfied through the conception, promotion, exchange and physical distribution of such goods and services."\(^4^4\)

According to Lazer and Kelley\(^4^5\) the systems approach places great emphasis on the analysis of flows and communications. Systems thinking recognizes the inter-relations and the inter-connections among the components of a marketing system. These components are as follows:

(1) A set of functionally interdependent marketing relationships among people and institutions in the system - manufacturers, wholesalerers, retailers, facilitating agencies, and consumers.

(2) Interaction between individuals and firms to maintain relationships, and facilitate adjustment to change, innovation, cooperation, and competition.

(3) Establishment of objectives, goals, targets, beliefs, symbols, and sentiments that evolve from and reinforce the interaction, thus producing realistic marketing objectives and programs and creating favorable images, attitudes, and opinions.


(4) A consumer-oriented environment within which interactions take place, subject to the constraints of a competitive market economy, the legal and socioeconomic environment, and the evolving relationships and methods of marketing entities.

(5) Technology of marketing, including communications media, credit facilities, standardization and grading, marketing research, and physical distribution.

Systems thinking furnished information about adaptations of systems, recognizes changing environments, and provides a conceptual framework for control. The effectiveness depends on having and using the right information.

Alderson develops "A Normative Theory of Marketing Systems" tracing the beginning back to societal and socioeconomic bases. He refers to "ecological framework, the survival and adjustment in organized behavioral systems." He states that "Every active marketing program endeavors to accelerate change or delay it." The behavioral systems move through levels of change and homeostasis: (1) the market equilibrium, (2) the organizational equilibrium, (3) the ecological equilibrium which pertains to the adjustment between society and its environment. Survival, power, conflict, and leadership are all relevant concepts in his "pathology of the systems." (Note: Are not similar concepts and terms heard in Extension Service dialog?)

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A review of any leading marketing text or readings book reveals many concepts that are similar or useable by the Cooperative Extension Service. Beckman and Davidson's Marketing lists chapter titles as "The Societal Environment of Marketing," "The Legal Environment of Marketing," "Consumer Marketing," "Institutional Structure of Marketing" and "Marketing Philosophy and Goals." The first words of the book are, "Marketing is an aspect of human behavior...."

Sessions concludes that "Perhaps the marketing concept is most constructive in helping to recover a firm grip on the obvious. This concept not only provides a framework that is simple in its design and therefore communicable; it is also operational because it links responsibility with purpose and results with the decisions and actions that produce them."

In the final analysis many ideas and concepts from marketing and other disciplines are applicable to the Cooperative Extension Service. It is in these dynamic environments where the biggest problem may be first defining the problems in order to establish priorities of action towards solutions.

Figure 3, Panel A. illustrates the total marketing systems concept for industry. Note how management can view the various subsystems from raw material procurement through processing through distribution to the consumer or industrial user. Thus the production function procedes through distribution functions all of which are supported by inputs from management and finance. The feedback circuit

FIGURE 3
A MODEL OF SYSTEM ANALYSIS APPROACH
TO TOTAL MARKETING CONCEPT

Panel A - Industry

Management

Raw Material Supplier or Processor ➔ Further Processor, or Manufacturer, or Supplier ➔ Distribution ➔ Consumer or Industrial User

Production ➔ Distribution
Finance

Feedback for research and profit from products and services

Panel B - University Environment

Administration

Faculty ➔ Facilities ➔ Teaching ➔ Audience

Production ➔ Distribution
Finance

Feedback for research and funding from programs
from the end user to management is by way of research carried on to determine if users are satisfied and are rebuying present goods and services. Research also uncovers new needs and ideas and forecasts their acceptance through pilot programs, field tests, or market research.

Likewise, Panel B illustrates the similarity of a systems analysis approach of a total marketing concept as being applicable to a university environment. The university administration can view the various subsystems of inputs from faculty using facilities through the distributing of knowledge by teaching to reach the audience or students. This is a people to people system wherein the production functions of developing faculty capability via research and constructing buildings proceeds through distribution functions of teaching to reach the end user, the student. Production and distribution are facilitated through financial fund procurement and administration. Again the feedback circuit from the end user (students of Cooperative Extension Service audiences), utilizes research and reporting techniques, tells administrators and managers what new needs are developing, and how well the current programs are fulfilling their objectives.

Lorsch and Lawrence\(^{49}\) identified the characteristics of companies that were well organized for product/service innovation. Figure 4 illustrates the ideal scientific transfer to and from market environment, to and from production environment, to and from research.

Author's Note: Is the triad of activity not very similar to that of the triad of extension, teaching, and research?

Sales Involvement creates motivation to sell new products.

Production Involvement creates motivation to change process.

Research's involvement creates motivation to seek new knowledge.

Mutual confidence in sales' market appraisal and research's knowledge of science.

Mutual confidence in production's ability to produce and research's ability to develop process.

Author's Note: In the "Production of Education" faculty and staff capabilities replace plant limitations. Customer needs equal audience needs.
Thus it would appear that the total marketing concept utilizing a systems approach not only offers much benefit to administrators of the Cooperative Extension Service specifically, but much can be gained by the entire university generally. This approach looks first to the market or audience and defines various strata and segments. It then analyzes the trends of those subgroups to determine felt and unfelt needs. These are identified, researched further, placed into a plan, organized and forecast into budget. The success potential, total benefits gained, and opportunities for further steps of improvement are outlined. The programs are placed into priorities, funded, and implemented.

Communication throughout the network of service and education keeps the administrators informed so that adjustments in budget, program emphasis, personnel, etc. can be made. In the Cooperative Extension Service, production of programs is a people system, teaching is people system, administration is people system. The subsystems need to work together to plan, to debate issues and priorities, and to coordinate action. This requires open and direct line authority but allows for informal and indirect communication at all levels. As Kelley and Lazer noted, open information flow is critical to success. Sessions emphasized simplicity of system design. Alderson referred to behavioral conflict, objectives, and leadership. Adler talks of strategy. All these marketing leaders list communications as being both essential and facilitated by a systems environment.

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As with the marketing concept in industry, the local level action is most critical to the Cooperative Extension Service. This is where the Extension made traditionally an excellent record of working with lay groups and audiences. Their agents have been respected for their expertise and their influence was felt throughout the community. However, as a community environment becomes more dynamic, then the local agent must adjust. He can become: (1) more dynamic generally and have less depth technically; (2) become less involved in implementation thus concentrating primarily in planning; (3) become more specialized technically and offer less auxiliary services.

The dimension of the problem is increased when considering the personality, age, and capability of the agent. He or she: (1) may want to change and improve; (2) may not want to change; (3) may not be able to change; and (4) may outwardly express willingness but subconsciously and overtly resist. Here the same principles of communication and learning become applicable as the Extension Service has long recognized and applied to learning and change in its lay committees.

The principles of learning set forth by Edgar Dale are particularly applicable.

(1) The clearer, the nearer, the more realistic and relevant the statement of desired outcome, the more effective the learning.

(2) We learn what we practice.

(3) You must teach for transfer.

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(4) Learning is increased by knowledge of results.

(5) There is a motivational factor in all learning.

(6) We learn best what is meaningful.

(7) Most people never reach their potential.

(8) Learning must be organized for sequence and cumulative effects.

Bender\(^{52}\) points out that persons learn when there is individual interest, needs are satisfied, the subject is meaningful, thinking is stimulated, there is opportunity to practice, and correct behavior is reinforced. Thus the county Cooperative Extension Service representation is critical, just as is the local manager and salesman in industry.

Suppose, for an example analogy, a company with local retail outlets sells refrigerators. A particular local market has been good. The salesman has done a nice job. Now the company top management decides that selling a new kind of hay baler will be profitable. The local store manager must then decide which option is best for his territory. Should he try to train his refrigerator salesman to sell balers too? Refrigerator sales will probably suffer. Then the refrigerator salesman may not be able to learn to sell balers. The products are quite different in service, audience, cost, benefits, etc. Or the refrigerator salesman may try to learn but not in the final analysis sell many balers because he is "just more comfortable selling refrigerators."

The local manager or administrator has other options. These include hiring and training a new baler salesman to work in the store.

\(^{52}\)Ralph E. Bender. Class Lecture, Department of Agricultural Education, The Ohio State University, Columbus, Ohio, May 18, 1970.
But that requires investment of funds under the risk that the costs may not be recovered. The new baler salesman may fail with the customers, he may not be able to get along with the office staff, etc.; or if put on at the same level as other salesmen, may cause their production to decrease. They may spend more time talking and less individual selling. The new baler salesman may change the informal leader-follower organization. To this point it has been a negative point of view intentionally. Conversely, a new baler salesman can add great new strength to the organization bringing in fresh ideas, enthusiasm, and action. The whole office can benefit, customer audiences can be better served, satisfaction improved, profits improved, etc.

Without further detail, the overall point can be made clear that the problems faced by a local Extension Service office can be very much the same as the local store. "Managerial decisions and trade-offs" must be made about programs (refrigerator programs), and about people (keep them, move them, retrain them, add them) all according to the needs of the audience which very often are not clearly defined or felt; and which may well be changing also.

More explicitly an agent specialized in agronomy may not become very concerned about city food problems or youth group pressures for the same reasons that a refrigerator salesman won't easily take on a hay baler line. He is simply not comfortable in a new line without considerable training and incentive to change. Furthermore, the readiness and ability to change is a function of his age, willingness, ability, and length of time on the job.
To repeat, the local level is most critical. Therefore, the firm which sells many products through local offices usually will first research what markets exist in each area or territory. Those products or services that are most in demand and/or most profitable will be identified or revised to fit the needs of those markets or segments thereof. Salesmen will then be chosen according to their interest and capability. Their ability to be retrained will be considered also.

Thus, one local manager may have all refrigerator salesmen, another may have all baler salesmen, another may have some of each. If the market for refrigerators is currently good, but the potential for balers is also favorable, then some funds may need to be speculated in a baler sales trainee to exploit both opportunities. The manager's major function then is to be alert to the needs, communicate these upward, and then fill that demand with people, products, and service; and solve all the operational and training problems related to them. In other words, the local office reflects both the current and potential demand of that particular territory or county.

Another analogy to the real world of dynamic marketing will complete this point that the local-level awareness and control of supply, communications, or logistics can determine an organization's success. The definition of a marketing channel is the "pipeline through which a product or service flows from production to the end user." Some manufacturers use brokers, others use distributors, others use their own local branches and retail stores. The degree of control over distribution increases in the above spectrum from very little to
total control. Maximum control is held by the channel that controls the final outlet. Thus, the choice, cost, and control of market channel is very critical to the success of a firm.53

Witness the phenomenal growth of firms such as Sears Roebuck and Co. and Avon Products, Inc. whose forte is "pulsing the buyer." Production of product is contracted or integrated according to specification. Could this not be very similar to Cooperative Extension Service principles of program planning? The Extension reader will quickly recall the organizational emphasis of the Leagan's program model; the planning emphasis of the Boyle model; and the emphasis on program evaluation by Frutchey. Standard procedures in Extension program planning are:

1. Analyze the situation by gathering local facts.
2. Identify objectives using gap analysis.
3. Develop a plan of work.
4. Actuate the plan.
5. Evaluate and reconsider the objectives.
6. Adjust the program according to new or revised needs or objectives and experiences to be improved.

To this point then, the systems analysis has been explained along with the rationale for its use in this study. The marketing systems concept was introduced because of its proven success in dynamic behavioral environments. Finally, the relationships of kinds of problems and solutions, the requirements and benefits have been provided. These bring into sharp focus the precise similarities between

firms and Cooperative Extension Service both of whose success depends on communication and the supplying of needs to an audience or market segment.

Lastly, if all the foregoing are optimum, a product to be marketed successfully must be offered at the proper time when receptivity is greatest. Is this also not true in program offerings by the Cooperative Extension Service?

The following are presentations of the proposed newly named and structured organization models which are intended to provide the Cooperative Extension Service a maximization of opportunity and a minimization of cost. Maximization and minimization concepts in business are opposites in objectives. Normally organizations in dynamic environments who wish to grow want to maximize their abilities to find, screen, and exploit new opportunities. Conversely organizations which are caught up in change that is difficult to define may want to "get a better grip" on resources and minimize their costs. In between these extremes, there are occasions when a firm will want to "minimax" its position, looking at a few very obvious opportunities but holding tight on costs with its present operations.

These concepts can be likened to the positions Cooperative Extension Service county offices could find themselves if they were to be managed as directly and sophisticatedly as are non-academic or non-extension marketing outlets. The existing capabilities in some offices might be sufficiently adequate, but the costs need to be cut and kept at a minimum. New opportunities would become very limited in importance or at least not considered until proven in other more dynamic counties.
In some counties most of the existing capabilities may be obsolete thus requiring an all-out effort to gain new exposure and explore many new opportunities. Costs, so long as they are within budget, would not be of concern. Some counties may find themselves in between where the minimax principle would have relevance. The next three sections will present the rural county model, the urban county model, and the metro county model in that order. The foregoing concepts will be related where particularly applicable.

Rural County Model

The traditional county office generally cannot compare with the dynamics of the local marketing concepts because of the rigidities expressed and implied by the present formal and informal Cooperative Extension Service organization. More on this subject will be analyzed later in this chapter when considering communications networks in the entire Extension Service organization. Suffice to say here, if a rural county office could be revised to put one agent "in charge"; redirection of the administrative role placing one person in line responsibility for the success of that office would improve operational efficiency. Litterer's book of readings cites numerous industry and government examples on this subject. Similarly the Journal of Cooperative Extension has carried several articles on the problems of the state and area specialist, use of local agents as analysts, etc. which may or may not be impeded by the informal organization of a less structured county office.

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The county administrator in the revised county model would also have a technical capability to serve in one or several subject areas. Assisting on other technical subjects would be assistant agents for home economics or female activities; 4-H or youth activities; or for agriculture, depending on the sex and technical capability of the administrator. (Note here that some female agents may make stronger administrators; which in the face of current pressure groups would give women equal opportunity. Traditionally, at least informally, the oldest or agriculture agent was usually male and "looked up to.")) Litterer refers to this as the influence of the informal organization.

There are two places where the Cooperative Extension Service has received particularly piercing criticism. The Battelle study indicated the lack of clearly worded objectives that were understood and translateable at all levels. The Journal of Cooperative Extension has carried articles indicating the problem occurs elsewhere outside of Ohio. The second point pertains to the relationship of the source of funds, the location of expenditure of funds, and the needs fulfilled. Some observers (post Battelle study) still say that money is not spent where agricultural needs are most apparent; and that the staffs simply keep increasing in size. Regardless of the sides in this debate, reorganizing the typical rural office could minimize the overall costs.

55 Ibid. See Part II, work of Selznik, Homan, Gardner.


57 Interviewee chose to remain anonymous. However, person is a prominent agricultural industry leader in Ohio and nationally. Served on committee that guided Battelle study.
Instead of the usual three full-time permanent professionals, the office would have an administrator and several agent trainees. Where expertise beyond their capability is needed, resource professionals could be drawn in from adjacent counties or from area offices, as is done in California and other states. Thus the services could be provided in accordance to most traditional needs. Stability with flexibility and economy would be gained. Benefits to the audience in relation to costs would be favorable. Author's Note: To be more precise, a detailed cost-benefit analysis by a team of experts would be required.

Figure 5 illustrates the micro model of the proposed rural county office. The rural county office objective would be to serve the traditional needs of the typical agricultural communities and surrounding farm enterprises. The socioeconomic segments would follow those seen in the past; a few large farmers, a large number of small or marginal producers. The urban areas consist of a county seat and a couple of villages. The rural school system may be well on the way to consolidation. The county agricultural agent serves as an important source of certain information to certain audiences. In other situations he may not be sufficient by current standards to lead innovative entrepreneurs on large or medium size farms.

The home economics agent serves the traditional female audience.


FIGURE 5
MICRO MODEL OF RURAL COUNTY OFFICE

Associate
Vice President

Area Office
Administrator

Administrative
Staff

Technical
Staff

Rural County
Administrator

Agric.

Women

Youth
The youth agent would work with farm boys, 4-H projects, etc. Working with urban youth would still largely contain the rural type flavor.

Several benefits appear possible through the rural county office structure.

(1) It puts one agent in charge, thereby fixing line responsibility, authority, and accountability. No longer can the lower level informal leader guide or block the destiny of that office. Unrestrained communication is directed up the line organization, thereby opening up the opportunities for both individual and group effort formally and informally.

(2) It can reduce or hold the cost of the typical extension office and thereby satisfy political and pressure group criticism.

(3) It puts an agent, regardless of technical background, in a position of administrator. He or she may not function well as administrator, but that experience will be gained with minimum risk and with open communications at a local level in a comparatively slow changing environment. As Hyatt states, "Promoting a person to supervisor is no guarantee of success."

(4) Assistant agents can cover the 4-H, home economics, or other assignments in the county with the help of para-professionals and with close assistance in program planning and other important functions by the area home economic or 4-H specialists and the local administrator.

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Alternative to this is to have one full time agent in 4-H and one full time agent in home economics, but each covering two or three counties. In either case, a dotted line communication relationship exists between county and area specialists with the knowledge and understanding of the administrator. (Supports advantage No. 1 above.)

(5) The assistant agent position provides a starting point for a training program for everyone entering the Cooperative Extension Service. Here he or she learns with guidance how to handle committees, meetings, planning, programming, and reporting. Small projects are delegated completely. Larger projects can be controlled with close supervision. As experience is gained and talents are developed, the person can be promoted to agent level in rural counties, then be promoted to larger and more dynamic positions. Some may move up through the technical staff. Others may move up through the administrative staff.

(6) The prime mission of the rural county administrator is to maintain good public relations with the majority of the constituents. As a communicator his largest task is to report new areas of interest, to assist the area specialists in program planning, formulating committees, training new agents, and reporting on current programs.

(7) The rural county office, well administered, could develop local sources of funding. The county commissioners, local industry and individuals could be tapped for resources when program interest reflects felt and unfelt needs.

(8) An organization so structured would provide continued stability that the Extension Service has enjoyed; still the type and calibre of agents brought in could reflect the flexibility to respond to needs more quickly.
For example, as assistant agents or the county administrator are promoted, the study of their replacements provides opportunity to shift programs and capability emphasis. This would be especially important where a rural county is located adjacent to a rapidly growing urban or metro county.

(9) Lastly, if the agent turns out to be a blockage to change or is so biased he cannot be broadened in interests; he or she can be moved sideways organizationally to eliminate the communications block up and down the line of organization.

For example, he or she can be "promoted" horizontally to an agent level for more than one county and report to a new proven administrator who is more skilled at motivating that type of biased individual.

(Author's Note: To this point in preliminary analysis, no disadvantages appear obvious. There may be some raised in the field testing portion of the analysis.)

There are only three reasons why an administrator would fail to be promoted to broader responsibilities.

(1) He does not want to be promoted. He has other local interests.

(2) He is a failure. Fortunately, the position will carry minimal external exposure in a slow changing environment. The trainees will still have communication open to other staff specialists and thus will not be hindered too much.

(3) He is too good at his job. The community likes the person. He likes the community. He trains young agents very well. Therefore,
his talents should be recognized and compensated for accordingly. His county should be identified as an outstanding training ground; and his trainees should be especially selected.

**Urban County Model**

The urban county office would be identified in its county seat location; but that county is experiencing considerable change because of land being retired from farming, increasing urban development, transportation expansion, etc. This kind of activity in the traditional setting causes pressures and change that are not always well anticipated or familiar to local leaders or grass roots clientele.

Population projection maps for the year 2000 indicate that the State of Ohio north of Columbus, forming a triangle with Toledo on the west and Ashtabula on the east will be very densely inhabited.

Crawford county, for example, is located half way between Columbus and Lake Erie. It is presently made up of the county seat, Bucyrus, plus two other cities of over 15,000 inhabitants. Additionally there are several villages, plus new super highways cutting across it in both directions.

Rural school consolidation was comparatively slow to be initiated but is progressing. Other innovations likewise have been difficult because of the rather wide variety of interests agriculturally, sociologically, industrially, and politically. There are several large land owners, but most of the farm operations are 80 to 200 acres.

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62 Joseph Duncan. Chief, Socio-economic and Manpower Development Division, Battelle Memorial Institute, Columbus, Ohio, 1966.

63 Russell L. Miller. Author's father was county agent from 1933 - 1962.
These farmers may also work in the factories in the three cities. Their views on unionization, finance, leisure, and farming are different than the traditional land laborer. Thus the types and complexities of problems, change, etc. are similar in part but also quite different from the traditional county agent's office. Taylor and Jones conceptualize the "urbanized social organization."

The administrator of the theoretical urban county is pictured as being responsible for planning, organizing, directing, budgeting, and supervising the office. Figure 6 illustrates the micro model of an urban county office. Note how the administrator may have several agents reporting to him, each a specialist in needed fields of interest. The contemporary agriculture agent however, may sit in on the zoning committee meeting led by the "other agent" who may be a "development expert." The contemporary woman's agent may also assist the youth agent on certain young female projects. The youth agent may work with rural youth in one meeting and urban youth in another, so his or her specialty must be dually applicable.

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FIGURE 6

MICRO MODEL OF URBAN COUNTY OFFICE

Associate
Vice President

Area Office
Administrator

Administrative
Staff

Technical
Staff

Urban County
Administrator

Agric.
Women
Youth
Other
From this brief description of activity it can be seen that the agents must be able to understand the past and respond to those audiences. Still the agents must be able to be receptive to change and help identify new needs. That office must be able to take appropriate and prompt action even if it is only to help plan programs for others to carry out. The agents need to be able to call in resource specialists; communicate with administrators, committees, and lay people; and to train para-professionals. The principle of "minimax" may be applicable in order to keep a grip on ongoing operations but be alert for new opportunities and funding.

Several benefits appear possible through the urban county office structure.

(1) There is one administrator charged with the responsibility for success of that county office. Success is defined as results of total involvement of the entire office, its agents, its use of resources and people, and the multiplicative use of para-professionals and lay people. Planning, organizing, direction, budgeting, supervision, and reporting gain maximum results when one person is charged with these prime responsibilities either to carry through individually or through others.

For example, the function of reporting, which is so important, is often not fulfilled because: a) the responsibility to an individual is not fixed; b) time and pressures of other activities; or c) the person closest to the project does see the need or doesn't care to communicate upwardly to administration or outwardly to the public served.
A good administrator, trained in communication and with a knowledge of motivating people, will be able to obtain progress reports as local feedback. He will keep local media tuned into "valuable, newsworthy information" when advantageous to the progress of the program or the office plans. Furthermore, he or she will be able to report upward on technical progress to the technical staff specialists at each level to keep them apprised on programs which they may have helped identify and plan.

Lastly, a good administration, so structured in a model urban county office, can directly report other matters of administrative importance such as budget, personnel training, etc.

(2) Communication both upward and internally, as well as externally will be facilitated beyond that example given above. In fact, a good administrator may have a technical capability, but his major skill will be use of communication and perception concepts. He will be extremely sensitive to all kinds of change in his country. He will elicit modern research techniques from university faculty as well as area and state specialists in order to identify both felt and unfelt needs according to audience segments. Meeting with committees, he will need to "listen" so priorities can be reached, proposals written, submitted to logical fund sources, and commitments obtained.

(3) Fund sources that have been traditional with the Cooperative Extension Service, through alert administration at the local level, can be informed so that in face of declining or stagnated funding, that office will continue to gain favored treatment. Likewise, if new
programs do develop and non-traditional fund sources need to be tapped, the traditional sources will remain cooperative. Lastly, as new programs are needed, other sources will be less restrained to contribute "for fear of interference."

In summary a good administrator will be able to continue to impress traditional fund sources while always being alert to expansion opportunities through new sources such as local industry, county commissioners, non-typical state or federal funds direct or through extension channels.

(4) Urban county office administrators, properly backed up, will be able to put together teams of resource specialists from area and state levels. They along with advisory committee members will be able to identify, plan, organize, and carry through projects for urban youth, urban re-development, recreational development, land development, etc. and programs that either are now done on a limited basis or else are going unnoticed.

(5) Agents arrive at their positions through technical capability and talent skills from various sources. The agent's role is primarily a specialist to serve needs. His training will have begun as an assistant agent in that or some other county. He or she will thus have served as apprentice on the job after college education and continuing training. He will have worked with lay people, committees, and para-professionals or at least been exposed to the principles of such activity.
(6) Agents who perform well and wish to pursue technical capabilities will be encouraged to advance through the "technical staff" organization into positions of field, area, or state specialists and researchers.

(7) Agents who perform well and exhibit skills and talents for communication, leadership, and direction will be encouraged to advance through the "administrative staff" and line organization to larger and more dynamic assignments at various levels.

(8) Agents for agriculture, women, and youth can be quickly identified as the traditional agents. Their training may be upgraded with more contemporary principles of theory and practice in their respective fields of specialty and broadened to include new horizons. This provides advantages then of being able to utilize a large proportion of those now employed without causing them undue psychological concern for their future security. (This is very important in taking the rigidity out of any organization.)

(9) Agents designated "other" will depend on the needs of the locale and for the time duration. For example, the needs for a city planning specialist may be short run or it may be ongoing for several years. The needs for a youth agent whose background is rural may change to the needs for an agent with prime emphasis on urban. 68 Promotions 69 and changing assignments are thus possible within a stable but flexible structure.


Durfee⁷⁰ states that supervisors find many agricultural agents now trying to be generalists as they work with varied groups of producers who are highly trained. Home demonstration agents working with individuals or groups of homemakers find it necessary to take into account powerful forces outside of the home effecting the nutrition and family economic management. Extension specialists are frequently baffled by organizational problems. He concludes the Cooperative Extension Service is confronted with the need for educational programs that cut across geographical and subject matter boundaries.

Likewise the rigidities and maturation of individuals⁷¹ which cause obsolescence of people and service thus can be recognized and bypassed conveniently for the good of the organization and without apparent threat to the person.

Lastly, the other agent may not deal with a specific subject. He may be a local coordinator for periodic special Extension or Continuing Education programs in veterinary medicine, medicine, administrative science, et al. which send traveling educational teams into the field from the college.

(10) Another advantage of urban county offices led by administrators and supported by agents described above is that at the area

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and state levels\textsuperscript{72} these people can meet and discuss truly meaningful problems that relate better to their daily operations. Presently there appears no defined way to organize area and state meetings except in very broad areas or very narrow technical subjects. These may be satisfactory, but more practical case history type meetings would appear desirable. If cross discipline meetings are to occur, a basic concern must be common to each.

**Metro County Model**

At the opposite end of the spectrum of extension capability is the metro county model. Here is where the action is compared to the other two models. Action is defined as the bringing of all the pressures of social change to face with all the resources and capabilities that can be brought to bear by the university at a given point in time. The metro county administrator has his agents and tenacles of communication spread throughout the environment in order to have a broad network of intelligence. Change direction and velocity can be analyzed and programmed. Unfelt needs can be identified and researched before crises erupt. Coordination with other existing agencies tends to spread influence and build the positive image of the Extension Service as a pivotal group within the social fabric of a changing community and structure.

Figure 7 illustrates the micro model of the metro county office. Agents consist of professional specialists, well educated in their discipline, and experienced in the real world of groups, power,

FIGURE 7
MICRO MODEL OF METRO COUNTY OFFICE

Associate
Vice President

Area Office
Administrator

Administrative
Staff

Technical
Staff

Metro County
Administrator

Accounting

Public Relations

Other

Youth

Women

Community Dev.

Inner City

Admin. Sci.

Health Sci.

Other
political issues, etc. Each agent may have several assistants who likewise are seasoned organizers. The administrator needs to be a dynamic leader who is capable always of maximizing the effort for opportunity search and minimizing the risk (not costs).

The benefits offered by the metro county office model are as follows:

(1) The administrator is a professional communicator and manager of people and projects. He has arrived at this position after considerable experiences which may not include traditional Cooperative Extension Service experience. He knows how to "perceive" people and situations in order to pick those that will be successful and those which may only be marginal. He must help his people interpret needs into proposals which are channeled strategically and result in funding. He will need to translate special needs of his office up the organization to encourage understanding when non-typical action is called for at the local level.

(2) Communication is extremely critical to the success of this model. Straight and open lines can be maintained within the office among the agents as well as between specialists and resource people brought in for project teams.

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73 James R. Miller. "Political Science Concepts and an Implication to Use in Program Development", Paper for Dept. of Agricultural Education The Ohio State University, Columbus, Ohio, February 25, 1970.

(3) Funding may come from a wide variety of sources. Local office accountability and reporting will be facilitated through close team work and administration reporting.

(4) If there is a need for traditional services such as an agriculture agent trained in horticulture or similar field and these cannot be justified economically as part of the metro office services, then that office merely coordinates with the county located adjacent; and use that agriculture agent when needed or on a schedule. Previous reference was made to multi-county coverage by agents in California.

(5) Agents serving the metro county office would be skilled in many fields of sociological change. They would work with youth, disadvantaged, urban renewal, women, ghetto businessmen, as well as industrial development, administrative and health sciences extension, legal and other continuing education, etc. Special agricultural extension services per se still could be supplied.

(6) Since there would be comparatively a small number of metro counties, the administrators from these offices would serve as a very well informed council to the central administration for extension, the university president, and the state governor. These could be very influential positions and their experience could well guide other programs and policies in the nation.

Spectrum of Change

If the whole spectrum of sociological, economical, and geographical change is viewed over time, population growth takes place
beginning with migration and the rural self-sufficient farmer and his family. Families enlarge and villages develop to provide services for surrounding farms. Manufacturing, and service industries develop and draw population to cities. Transportation further develops trade. As saturation levels of labor are reached, populations shift from the excess rural to the village to the cities.

As cities grow, the expansion adds new outlying areas allowing for the affluent socio-economic segments to move to the suburbs. The central urban areas begin to decay leaving only those unable or unwilling to contribute to society. The result is that there are two poles of disadvantaged groups--the rural poor left behind by technology and the exodus to the cities; and the urban poor left behind by the exodus of the affluent to the suburbs. Neither of these groups seem to be able to improve their plights without injections of government welfare programs. The efforts and kinds of programs advocated and tried appear to have been largely a function of the political party in office and the publicity attainable. The real progress at the grass roots level seems to leave a great deal to be desired. Criticism has been forthcoming from all levels of recipient as well as government agencies and intellectuals.


76Miller. "Political Science Concepts and an Implication to Use in Program Development"
One of the dialogues that developed during the Kennedy-Johnson presidential administrations was that large amounts of resources were made available but were either wasted or not used because of lack of an operable organization at the local level. At the same time, the Cooperative Extension Service had the local organization in many instances but was either not recognized as a viable unit for that purpose or else admittedly the Extension Service didn't seem to want to "venture" too fast into this new area. There seemed to be a difference in the rural poor youth and the urban poor youth. This argument in the final analysis was superfluous because the ability to respond quickly was not there due both to rigidities in the Cooperative Extension Service and lack of knowledge on the part of government, et al.—"a communication gap."

Ohio Cooperative Extension Service in its current status reports does indicate that it is moving into these subject areas with youth camps, disadvantage programs, etc., but these reports were written up through the year 1970. As noted earlier in the introductory chapter the Title I Act of 1965 has been described as a failure compared to its original intent.

Ohio has a total population (1960) of 9,706,397 classified as 73.3 per cent urban and 26.7 per cent rural. It ranks eighth largest. It has eight cities over 100,000 in population. (Only California and Texas have more cities of this size.) These metropolitan centers

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77Ibid.

face problems that are county wide, sometimes encompassing several counties. Cleveland, Columbus, Toledo, Cincinnati, Akron, Dayton, Canton, and Youngstown have all experienced racial strife which erupted into riots in recent years. Organizational structure still seems to be fragmented into pressure groups for change. The traditional social fabric appears more or less in a position of defense scrambling in an effort to pacify or patch up. Government funding without the vehicles of combined organizations and communications only reaps exploitation and plundering for a few. (For example, allegedly the Black Panthers in Chicago received some $3 million from the Office of Equal Opportunity for "Head Start Programs"). The problem entoto still remains.

It is from this point then that experience, research, logic, and rationale would indicate that if the Cooperative Extension Service does have the organization and is present on location where these huge programs need to be transfused into local conditions; then a re-structuring is necessary. Reorganization must remove the rigidities so that change in personnel and transferrable capability is possible promptly and within a stable but flexible structure.

Paralleling the continuum of change from the needs of rural to the needs of the cities, the three theoretical organization models have been developed. The rural county model which remains essentially the same carries on the duties of that traditional county office, serves as a training ground for new agents. The urban county model continues to fulfill traditional needs, but which may be changing slowly, still being alert to new and more dynamic programs. Continuing Education could become extremely important as well as the supplying of
other university expertise into such subjects as industrial development, tax seminar, labor management, etc.

The metro county office hypothetically would be pictured to only slightly resemble the present day capability in that, responding to various sociological demands, the personnel would be specialists in urban-suburban problems, education, social change, etc. The suburban gardner, the young housewife, et al. might still be able to obtain personal information; but the change agent per se in that office would be the county agricultural extension agent of the past all dressed up and trained as the county extension agent of the future, able to draw on all kinds of university expertise when needed. His main objective would be to be tuned into the demands of changing times and to be sensitive to the political and sociological structure in a given county.

As a brief review then, the most critical level is the local level and the most critical reasons for success or failure of the county office are the people staffing those offices and their communication network. It is from that local level that change can be both identified as needed, organized into wants of the community, and implemented by the desires of that county.

To this point we have identified theoretically three new local office concepts--the rural, the urban, and the metro. An area office may have none, one, or several of each of these types reporting to it. Additionally, over time, transition may take place as one county moves from rural characteristics to urban to metro. Metro counties may be bordered by urban or rural counties. Rural counties may surround an urban county.
Viewing these counties in another dimension, the personnel of rural counties will have more in common with personnel in other rural counties, urban with urban, and metro with metro. Area office administrators with metro counties will be more conversant with problems of other area offices with metro counties.

Without further detail it can be seen that while a formal line organization structure may delineate rather direct communication networks, informally there must be opportunities for these units of most commonality to discuss mutual or similar problems to arrive at viable, realistic solutions within the time frame of pressure or response.

Additionally, the formal organization requires that personnel have direct short lines of command while still enjoying the freedom to have dotted line connection with their counterparts by function at various levels.

For example, the county administrator with an accounting problem or budgeting problem, etc. should be able to contact that particular administrative staff person at the area level. If unsolvable at that level for some reason, direct dotted line connection is possible at the state level.

On the technical staff side, a county agent should be able to take his problems or his ideas to his counterpart or specialist at the area level, who can go on up to the state level as required or desired. All this communication takes place with the full knowledge and approval
of the administrator at each level. This is the reason for the dotted line relationships shown in Figure 8, the Macro Model of the proposed Extension Service for the Ohio State University.

**Macro Model of Extension**

The macro model was built from the foundation upward. The foundation is made up of the micro county organization structural units each identified and staffed according to the local markets or audiences they serve. Thus the macro model reflects the desired flexibility of personnel and programs possible within a solid framework of subsystems and communication networks. The eighty-eight offices would be better able to each individually and collectively meet the challenge of change within their respective environments. The anticipation, perception, and response to revolving and evolving needs would be exposed to the internal organization as well as the various publics served.

Moving up from the local level to the next, the area office comes into view functioning as an intensive intelligence center. Administratively, it receives new ideas from several county offices, combines similarities, describes differences, and assists in putting together new program proposals. Ongoing program reports can be monitored, compared, collaborated, and forwarded. Routine problems can be isolated and corrected at that level. Only the exceptional problem would require top level attention. Resource funding and budgeting at that supervision level encourages accountability in administration.

Problems of technical nature likewise are better described and solved near the local level. Only the major technical problems surface
at the state level. Personnel problems in either the administrative or technical staffs likewise are best solveable at the area level or below.

With the current Cooperative Extension Service offices, the span of control appears to be a desirable 8 or 9 to 1. The size and content of the administrative and technical staffs at the area level office would depend upon the size and content of local offices reporting to it. Some persons might have dual responsibilities such as accounting and budgeting; or public relations and reporting; or all health sciences; or all crop chemicals. Some area offices might function better as specialty support for the county. Others may backup only certain commodity programs and rely on multiple county agent coverage for input, thereby serving only a coordinating function.

In a dynamic environment, continuing detailed analysis would be required to prescribe the profile of each office. In other words, it would be impossible to superimpose any one area office profile onto the others without first analyzing existing and potential similarities and differences. This is to say nothing of the personalities involved.

The state level organization only partially resembles the current Cooperative Extension Service structure. The administrative operations would comprise one major arm of staff organization. The technical programs staff comprises the other major staff organization. Note the word "staff" in both because they are both support functions connected by dotted lines to their respective groups at the area and local levels.

Here it might be well to consider new nomenclature for these staff persons. The literature cites case after case of the need of
extension to have its own academic faculty, the implied difference of extension and resident faculty, tenure and compensation differences, ad infinitum. In other words, time has built a word definition pertaining to resident faculty that is difficult for extension to transcend easily or fully.

Therefore, could not another lesson from industry research organization be applied here? The lesson is that very few good researchers or good teachers make good administrators. Psychologically good researchers are often happier if left in that environment. Instead they are rewarded by their peer acceptance in their discipline, then are "pushed" into promotions via administration. This is a whole field of study within itself.

Suffice to say here, consider for example, re-naming positions from area level in technical staff upward along these titles: area agronomy specialist, state agronomy specialist, state technical supervisor for agronomy, senior technical advisor, senior fellow for agronomy, senior fellow emeritus, etc. In this way the professional ranks are somewhat related by extension views but not in direct conflict with faculty views of status in a discipline or department.

Administrative staff titles could likewise reflect the position and progress. For example, area accounting specialist, state accounting specialist, state accounting supervisor, senior accounting advisor, emeritus, etc. might be used.

Assistant vice presidents are at the levels of major staff inputs. Division directors and department chairmen titles would identify each of the departments serving under them. Again, the size and kind of departments would be a function of needs and resources immediately and potentially available.

The line organization flows from the county administrator to area administrator direct to the associate vice president. This facilitates uninhibited communication and action where the authority, responsibility, and accountability are centered. The span of control remains a feasible ten area administrators to one state administrator. If this proves unacceptable due to correspondence volume, meeting and travel time; it could be split into two associate vice presidents reducing the ratio to 5 to 1. Those listed in Figure 8 are indicative only of basic minimum capabilities at the state level currently.

Two additional assistant vice presidents are suggested at that level. One would serve to head up Columbus Campus Center For Tomorrow Building and Continuing Education activities. These activities are now quite successful and being managed very well. The other assistant vice president would serve as manager of new program development. It is in this office that broad new directions and planning would take place. Here, information center concept and proposal writing capability would be envisioned to support new ideas and presentations sent through from the local level, passed on as feasible by the technical staff, and finally budgeted and approved by the administrative staff. The new program department would thus function as the leader in gaining new resources for total university extension outreach.
The associate vice president functions as highest line operations office similar to executive vice president and general manager of a company. He is responsible for the total success of operations at all levels, line and staff.

The Vice President for Extension is the policy level office, sitting in with full cabinet rank with the president and other vice presidents for academic affairs, business and finance, etc. The rationale for a cabinet level office in charge of all university extension outreach has much valid research to support it. Clegg, McCormick, et al. have published on the subject. States which have converted their traditional Cooperative Extension Service to a university general extension thrust have well documented their plans and problems of implementation. These include among others Missouri, Wisconsin, West Virginia, North Carolina, and Georgia.

From this point an analysis will be introduced relating general extension and organization theory to the university environment. Finally, this chapter will be completed attempting to pull together the theoretical models, the following analysis, and conclusions drawn therefrom.

Analysis

If the functions of continuing education and extension are placed in similar perspective, then much is to be gained. McCormick\textsuperscript{80} points this out in his analysis of consolidated extension services in land grant universities.

\textsuperscript{80}Robert W. McCormick. Presentation to meeting of heads of Consolidate Extension Units at Kansas City, Missouri, February 13-14, 1968, The Ohio State University, Columbus, Ohio.
(1) The priority reason for consolidation indicated by the reporting institutions was the desire to serve the clientele needs of the state in a more effective manner. It was pointed out that the Cooperative Extension Service provided a mechanism for reaching people of the state, but the problems to be solved required competence which transcended the areas of expertise in agriculture and home economics. Thus consolidation made possible the "best of both worlds."

(2) A second reason for consolidation which is related to the above was the need to utilize more efficiently the resources of the university in the Extension function. A desire to eliminate fragmentation of effort, duplication and program "gaps" was indicated as a key reason for consolidation.

(3) Coordination of budgeting functions and accurate accounting of the use of resources was a related reason for consolidation of effort.

From the public point of view, Extension services appear to be able to hold their value. Traditionally, as well as contemporarily, their ability to generate public support has been generally very good.

Conversely continuing education in higher education appears to hold a marginal status. Clark points out that the university as a whole is concerned with young students whose main occupation is their schooling. As in the public schools, university adult programs are not directly related to what the university sees as its main aims. The extension of the university to part-time students, non-regular students, and peripherally-involved adults has produced administrative units (university extension divisions and evening colleges) which are typically marginal.

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One main characteristic of universities that is rather unique is their variety of purpose. The instruction of students, the training of professional people and the conducting of research are the most frequently stated purposes of colleges and universities. A closer look shows that most universities are involved in feeding, housing, counseling, continuing education of adults, community development, rural development, alumni activities, and other activities.

Hopefully, universities have goals or purposes that can be read in the faculty handbook or recited by the chief administrative officers. However, an educational enterprise, composed of professionals whose method of operation is more like a legal or medical firm, has a variety of individual and group purposes that may or may not support the major objective. Corson states that universities pose organizational dilemmas in that on one hand there is a need to develop a systematic organization to coordinate all its members in achieving its purposes, while at the same time stimulating and facilitating the enterprise of each individual.

This variety of purpose makes it very difficult, if not impossible under traditional academic freedoms, to gain anything like total cooperation from the faculty and staff of a university toward achieving commonly accepted goals or objectives.

University extension education, organized in such a way that it is conducted primarily by the colleges, schools, and departments of the university contributes to this organizational dilemma.

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Adding to this organizational dilemma is the dual allegiance of most of the faculty and staff personnel of universities. Hopefully, all of these people are concerned with knowledge in a broad sense in that they are engaged in an effort to understand, improve, and conserve cultural heritage, understand and improve the present day environment and the development of future environments.

However, each faculty and staff member as a specialist in a profession, discipline or service, is segregated into one of the colleges, schools or departments of the universities. Many times he operates in this segregated environment as a free agent making decisions, value judgments, and taking action that often is not understood or even known by his dean or director.

University continuing education organized so that it is conducted primarily in the colleges, schools and departments of a university can be affected by this dilemma to the extent that the specialists are too busy for or not interested in adult education.

Most universities are experiencing budget difficulties and resource development problems. This means that for universities to continue to exist, they will have to rely on federal grants, state grants, research grants and private contributions to provide the balance of the operating funds. This results in comparatively low salaries, in rather mediocre assistance and facilities available to aid the faculty and staff in their teaching and research, and in keen competition for what development funds are available.

If continuing education is organized so that it is conducted primarily in the colleges, schools and departments of the universities,
it can be caught in a two-way squeeze. It can suffer from the same
general lack of funding that the university suffers from but also can
suffer from the way the specialists in the colleges, schools and
departments choose to spend their allocation. In too many instances
there simply is not enough left for continuing education.

Conversely, extension programs are subject to vast and varied
government funding. Please recall from Chapter III the sources of
funds in the Cooperative Extension Service, administrative science,
veterinary medicine, et al. programs. Author's Note: It would appear
that extension programs when joined in with continuing education, and
generating the efficiencies and benefits noted by McCormick would
certainly provide combined funding of great mutual benefit to both
extension and continuing education.

Present day public universities are so complex that it is nearly
impossible for the chief administrators to direct or evaluate the
work of the colleges, schools or departments. If the dean of a college
of veterinary medicine, for example, requests equipment for equestrian
research; the president of the university is probably not able to
evaluate recommendations of the college dean. This kind of situation
spread throughout a university has resulted in the granting of more
and more autonomy to the colleges, schools, and departments. This
autonomy is prevalent in universities because of faculty tenure,
specialization, and the diverse purposes of the university.

University extension and continuing education organized so that
they are conducted primarily in the colleges, schools and departments
of necessity cannot help but be affected by this autonomy. In this
kind of organizational structure they will probably exist only to the extent that the decentralized specialists deem it important.

Charters granted by state governments bring universities into legal existence. These charters grant the power to organize, administer and maintain the university to a governing board. Because of the tremendous complexity and size of land grant universities the governing boards have had to delegate most of this power to the presidents of the universities. The presidents in turn, for the same reasons, have had to delegate most of their responsibility to the administrative officers of the university. The administrative officers, in turn, have had to delegate most of this power to the faculty organization of the university. In a strange sequence of events the power to govern the universities has moved from the governing board to a faculty whom the governing board does not even select or evaluate except as a rubber stamp procedure.

University extension organized so that it is conducted primarily in the colleges, schools and departments of the university can exist only if the decentralized decision makers decide that it is a part of their responsibility.

These characteristics of universities (e.g. variety of purpose, faculty characteristics, lack of funding, administrative autonomy, and delegated decision making) need to be considered when formulating the organization and administrative structure of university continuing education.
In closing, some concepts of organization need to be considered in support of developing organizational and administrative systems for university extension and continuing education.

Litterer defines organization as "a conscious plan or system of tasks and relationships between tasks to coordinate the efforts of people in accomplishing goals effectively and efficiently."

Jucius states that the importance of an organizational system is that it fits the work of individuals together, it fixes responsibility and authority, it provides for communicating and it enforces accountability.

Sherman points out that "principles fail as universal rules of thumb for organizing." He feels that principles can be of some value if among other things, it is remembered that principles may be mutually contradictory and the key is to know which one applies under what circumstances and to what extent.

Some of Sherman's principles of organization that have particular application to university extension and continuing education are listed below.

(1) Unnecessary duplication and overlapping of functions should be avoided.

University continuing education organized in such a way that is conducted primarily by the colleges, schools, and departments of the

83 Litterer. "Organizations: Structure and Behavior."
university will have unnecessary duplication in many areas. For example: the printing of announcements, handling of registrar duties, training, report making, research, and possibly in program offerings. It should be remembered, however, that duplication in some cases could be beneficial in bringing maximum force to bear on a problem.

(2) Responsibility for a function should be matched by the authority necessary to perform the function.

If the primary responsibility for university continuing education is decentralized to the colleges, schools, and departments, the central administrative unit will not have the necessary authority to function effectively. For example, if the division of continuing education felt it appropriate to offer a program in education for aging but the faculty in sociology, political science and psychology did not feel this same need, no program could be offered, utilizing existing faculty.

(3) Authority and responsibility for action should be given to those actually performing the operations.

Decisions should ordinarily be made by persons with adequate competence, information, skills and perspective. An activity cannot be delegated if there are not trained and capable subordinates to carry out the responsibilities.

If the extension and continuing education activities of the university are delegated to the colleges, schools, and departments; key decisions probably can be made by faculty who are oriented to classroom teaching for younger people. These same faculty people have little or no training, competence, or skill in adult education.
(4) Every necessary function of an organization should be assigned to a unit of that organization.

The three functions of university continuing education should be assigned to the administrative unit in the university responsible for continuing education. It is then the responsibility of that unit to see that personnel trained in extension education are performing the necessary functions.

(5) Uniform methods and procedures should be installed when necessary or desirable for efficiency, economy or consistency.

In the case of university continuing education, this would at a minimum involve uniform registrar procedures, program evaluation procedures, financial procedures and research activities. Extension program planning, proposal funding, reporting could be routinized procedures among others.

In order to fix responsibility and authority, provide for communication and enforce accountability, some type of organizational structure must be used. Three basic structures are defined in literature concerning organization.

The line form of organization has a one-to-one ratio. One person, who performs all duties related to his area, reports to only one person. In this form of organization "buck passing" is eliminated, decisions are reached quickly, and the organization is easily understood. However, it is difficult to find individuals who can perform all the duties in a given area. Consequently this form of organization is used in small enterprises with comparatively simple problems and experienced employees.
The functional form of organization finds each person reporting to several persons depending on what phase of work is involved. Each person can become a specialist and it is easier to find trained or trainable people. However, having one person report to more than one person creates divided lines of authority, has people with equal authority working together.

In the line and staff organization each person reports to one person and receives specialized help from various experts. The line people in the organization have "command" authority and the staff people serve as advisors. This form incorporates a single line of authority and at the same time provides expert advice and service through the staff departments. This frees executive time to concentrate on major concerns. One drawback with this form is that the staff people may try to become line people and give orders instead of advice.

Likert, et al. indicate that the task of management is the task of managing the human organization since, after all, people do the work. Organization behavioral theories vary over time. Similarly the scientific principles and procedures pertaining to leadership, management and organization provided by the social scientists seem to gain increasing attention.

These theories and scientific principles, though essential in organization and administration, have not been included. This study deals with the organizational and administrative structure in which these theories and principles could and should be utilized. For more support on this subject see: Rensis Likert, "The Human Organization";

In concluding this analysis chapter, an attempt will be made to pull together threads of pertinent thought from the background chapter through the current status chapter, the chapter presenting the models, mixed with the theory and literature support of the various subject areas.

The relevant subject areas include the critical level and elements of model development, the still relevant attributes of the Cooperative Extension Service, the attributes that need to change, and the whole new scope of attributes to be gained. Further, the subjects of staff; change; communications; stability; flexibility, funding; programming; budgeting; past, present, and future trends will be addressed separately and in the aggregate. Lastly the impact of public relations and politics will be considered.

Paul A. Miller described the predicament facing the Cooperative Extension Service as "Wandering between two worlds, one dead, the other powerless to be born." Shaffer has written extensively about agricultural change and policy implications. He cites two comments which are


Similarly pertinent. "The major advances in civilization are processes that all but wreck the societies in which they occur."—Albert N. Whitehead. "There is absolutely no inevitability as long as there is a willingness to contemplate what is happening."—Marshall McLuhan.

Throughout this study a series of questions has been raised and reraised each time a new plateau of research input was achieved. They all dealt with the value and real pertinence of services beginning with the traditional Cooperative Extension Service. They were repeated after the current university extension status was reported and related to not just solutions, but to providing solutions in time and with the velocity demanded by the times. Dynamic environment systems concepts were reviewed and again questions relating to the Cooperative Extension Service were raised. The models were presented with a listing of apparent benefits provided. The overall continuing education and extension thrusts were described as they relate to professionalism, status, programs, funding, administration, organization, methods, and personnel.

One final summarizing question can be reiterated, "What is the true social value of the general extension outreach of Ohio State University?" As Battelle probed, "Are there other uses for public funds that will provide greater social benefit per dollar invested than that provided by the Cooperative Extension Service?"

There are several conclusions from the Battelle study which appear to still have relevance. These will serve as a basis to the closing analysis and concluding remarks.
Battelle stated:

"Political history indicates that major changes in legislation usually result when situations reach extreme stages. It would appear that the best course for Extension is to prevent this extreme situation from occurring by "reading the signs" and adjusting accordingly. In the past, Extension has made such changes in organization and operations post facto. It is unlikely that such a luxury can be afforded in the future. Lead time for adjustments is going to be increasingly critical. If such adjustments are made in advance, Extension (1) would be in a stronger position to sell legislators on its programs, (2) if budget cuts are made, would be in a position to make maximum use of funds, and (3) can more effectively seek funds from those organizations that benefit from its activities.

Considering the scope of the changes suggested, more extensive than any previous ones in the recent history of the Extension Service, it is important that all Extension workers be made fully aware of the intent of such changes, and if possible be included in every phase of planning changes. Preferably such changes would be made over a period of time so that individuals can adjust to expected changes and clientele can be properly indoctrinated as to the future situation. A stronger Extension Service would result from building the confidence of Extension workers in the future position of Extension that would result from the changes. Certainly, benefits provided by any change would be nullified by a loss of worker morale."88

The two major points of need emphasized by Battelle are (1) the importance of identifying, timing, and responding to change; and (2) the dependence upon human resources for staffing, committees and funding. These same two major points have proven their value in dynamic behavioral systems environments in industry—the placing of properly trained people in the most decisive positions.

The theoretical models conceived and presented in this study offer two major benefits:

(1) They emphasize the local level staffing capable of sensing, identifying, researching felt and unfelt needs of the changing society by the broadest definition.

(2) They provide for positions where people can be best utilized for current capability in a traditional setting. Retraining and redirection of personnel is possible in other settings still maintaining high level morale. Whole new personnel can be brought in smoothly and effectively to bring about change without disturbing the ongoing organization.

The past influence of economics on the author forces an attempt to place the foregoing into a general formula: precisely the need for properly trained people in the proper place (advocated by Battelle); plus proven concepts from industry that properly places properly trained people; plus the methodology to accomplish all this through the concepts of theoretical reorganization models; should logically equal a new improved extension outreach; thereby utilizing the best of the past, yet incorporating the best of new capabilities when and where needed most.

More specifically, redefining the counties according to the theoretical models appears to provide the following benefits:

(1) Present organizational structure of the Cooperative Extension Service is utilized with county, area, and state personnel.

(2) Present Cooperative Extension Service fixtures and facilities located in county, area, and state offices can continue to be utilized.
(3) The addition of continuing educational or general extension personnel can be accomplished with little or no increase in fixed overhead costs beyond the present No. 1 and 2 noted above.

(4) The present individual and total attributes of the Cooperative Extension Service and general extension or continuing education can be continued. There is no competition or substitution of capabilities of personnel, etc. They can be combined for mutual benefit as noted by McCormick.

(5) The individual continuing education groups can be joined to gain strength. Cooperative Extension Service also gains strength because of widened capability. These results can be anticipated based on experience in states where extension was merged.

(6) The colleges' academic departments lose continuing education and extension services but they gain because faculty presence and overhead is also lessened. The conflict of extension and resource staffs is reduced. Respective goals, thus separated, can be removed from marginal status, better defined explicitly and accomplished.

(7) The capabilities and strengths of individuals and departments can be maintained in technical staffs thus continuing the assets of the Cooperative Extension Service to greatest advantage.

(8) Traditional audiences, programs, and committees can be continued with minimum interruption or change.

(9) Slow changing audience segments can be identified. The staff and program adjustments can be made within a stable ongoing system with little trauma to the employees or the audience.
(10) Rapid changing environments can be identified; dynamic behavioral systems concepts employed; so as to prescribe solutions before problems and people provide extreme shock waves into society's change of that county. Present employees located in these environments are probably already somewhat insecure as to their future. They can be relocated in a minimum of situations (probably eight counties) maybe to an adjacent county position.

(11) Administration and communication concepts make up the skeleton of the line organization. People trained and skilled provide the leadership and direction; conforms to sound organization theory and proven in practice.

(12) Technical staff supports the line organization with the informal organization communicating according to subjects of functional commonality to provide in-depth or cross discipline solutions to the multiplicity of problems. This conforms to sound theory of dynamic environments and proven in practice.

(13) Administrative staff supports the line organization to insure administrative accountability, supervision, decision making, and reporting.

(14) Program planning originates either at local level with new ideas, or programs can be pushed down from federal or state funding. This should expedite action on government programs which in recent years have suffered for this reason. The local office is the hub of action with the interface of society and audience segments. The area
office is the intelligence center for new and ongoing programs. The state level is where the overall budgetary and political activities take place to accomplish program funding.

(15) The area and state offices remain largely as they are today except persons are relocated and functions renamed.

(16) The major new addition to the organization is of cabinet level office for Vice President of Extension. This position may possibly be filled from present personnel if their capabilities fill the position profile resulting from more detailed analysis.

(17) Thus a total merger can take place with very little trauma to personalities or organizational structure.

(18) The financial assets combined from present individual income from contracts, programs, legal bases can provide adequate beginning budgetary requirements. This is estimated at about $12-14 million total made up of Cooperative Extension 1969-70 budget of $8,922,811 plus other college continuing education budgets.

(19) The relationship of resident faculty and extension can be enhanced because academic faculty need not fear extension faculty status. New titles, position descriptions and nomenclature eliminates the case of traditional comparison.

(20) The conflict of dual allegiance to discipline and organization in an extension environment of practitioners in the everyday world is minimized more than can be expected in academic departments per se. Program success and teamwork through functional relationships will be maximized.
(22) Power and authority will be centered at the level where responsibility and action are the greatest. A minimization of "bureaucratic crust" should occur because of dynamic sources of information and parameter definition.

(23) The philosophies and objectives of Extension can be better defined thus offering the goals and missions to be programmed and completed.

(24) The best of the organizational forms is utilized through strong decisive line structure with well informed and communicating support by two staffs.

(25) The remodeling of counties and merging of functions will provide unlimited positive public relations value.

Adler's latest book lists a number of current vital subjects of interest by pragmatic experts in the fields of marketing, organization, and behavioral change. The chapters are titled, "Marketing Vision," "Concentration," "Investment Philosophy," "Product Innovation." Do these not also appear to be similar to those in a book on Extension? "The End Run," "Brand Extension," "Market Segmentation," "Multibrand Entries," "Distribution Break-Through" from Adler parallel the thoughts expressed in this study for the need for new organizations and services to end run traditional Cooperative Extension Service rigidities in order to reach new audience segments with a multiplexity of programs.

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"The Distribution Break-Through" of Adler and other marketing men may well parallel the author's multi-county models to distribute general university extension services.

Adler's last two chapters are titled "Merger and Acquisition" and "Iconoclasm." Here very succinctly stated is the analogy of the Extension movement. Complete merger is essential and in order to do so successfully the top management must be willing to visualize creative and unorthodox ways to solve orthodox problems and extend the outreach of Extension or expand the market.

Redefining county organizations according to these theoretical models can be the one small step for Extension and the one giant step for mankind.
CHAPTER V
FIELD TEST RESEARCH RESULTS
OF THEORETICAL MODELS

The field test phase of this study was designed to identify the reactions of high level administrators outside the State of Ohio to the theoretical models. The author and committee felt that if value judgments were to be relied upon in a descriptive study, then the research population should be as knowledgeable as possible, and yet removed from the structure of Ohio State University Extension organizations. The methodology offered by the theoretical models was very precisely in question. Other ancillary subjects were not to have been included at this time by too much introspection.

The experts were defined as high level administrators of Extension in state universities and land grant colleges. This suited the first criteria that the institution must have an Extension outreach and be a comprehensive university complete with professional degree granting facilities.

The institutions were located in midwestern, southern, eastern and southeastern states, generally within the four states of Minnesota, Louisiana, Georgia, and New Jersey. This complied with the second criteria that general subject and audiences of the outreach must be similar in the aggregate with Ohio. Some of the sub-criteria considered
included: size, land use, population, urban development, agricultural production, resource development and industrial development.

The third criteria was that the experts should be able to offer perspective from both the merged general and cooperative extension service; as well as the independent cooperative extension and independent general extension service. The twenty-two states included fourteen with separate extension services. The eight states with merged extension services included: Wisconsin, West Virginia, Missouri, Georgia, Delaware, Alabama, Iowa, and Virginia.

The models were presented along with supporting written text. The report draft was refined and improved; and was then exposed to experts for constructive suggestion and comment. The first four chapters; or approximately 120 pages of the draft were reproduced, bound and mailed to each expert along with a cover letter and questionnaire. The response instrument had been designed, revised, and tested on a small sample. See Appendix A for example of letters and the response instrument; Appendix B lists recipients.

Each of the above recipients was offered no incentive to respond. Recognizing the time factor in reading 120 pages and responding, it was felt that response would be encouraged through a second contact. The time limit of one month after anticipated receipt by the expert was selected as a non-response cut-off date. In other words anyone not responding by mail or phone within thirty days after mailing date plus five days was considered a non-respondent. Mailing date was April 28, 1971.
General Response

The population (34) was asked to devote considerable amount of their valuable time to review and comment. The returns of the questionnaire totalled twenty-three. The sixty-eight (68) percent response certainly indicated to a high measure the degree of interest placed on this subject by leading administrators, regardless of the pressures of other business. Two replied but declined to participate because of time pressures and foreign travel. The administrators of merged extension systems numbered eight; five responded, or sixty-three (63) percent. The non-merged extension administrators numbered twenty-six; eighteen responded, or sixty-nine (69) percent. The general response to questions of agreement or disagreement are recorded in Table 1.

TABLE 1

<table>
<thead>
<tr>
<th>Type of Extension Service</th>
<th>General Agreement</th>
<th>General Disagreement</th>
<th>Non-Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merged</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Non-Merged</td>
<td>16</td>
<td>2</td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>2</td>
<td>11</td>
<td>34</td>
</tr>
</tbody>
</table>

Note that all the respondents from merged extension services were in general agreement with the objectives of the project that the theoretical models do offer a worthwhile methodology to improve the extension outreach.
Furthermore, all but two of the non-merged extension administrators generally considered the theories favorable. The administrators who appeared in general disagreement also chose several no comment responses. It might be concluded that either these persons had very strong biases, superior wisdom, or else chose to respond but with only cursory interest in face of pressures of other business. In any event these answers do provide for non-unanimity.

The response instrument contained six questions that used the "Likert Type Scale" to record replies. These will be addressed individually in separate summary tables as follows for each question.

Organizational Level Critical
To Change In Clientele Groups.

Question No. 1 asked: "If the process of change is to take place in clientele groups, the level of Cooperative Extension Service organization which is the most critical is the local or county level."

Response is tabulated in Table 2 below.

<table>
<thead>
<tr>
<th>Type of Extension Service</th>
<th>Response</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>No Comment</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>Cooperative</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
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<td>2</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Merged</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>10</td>
<td>9</td>
<td>23</td>
</tr>
</tbody>
</table>
Nineteen of the twenty-three responses agreed or strongly agreed. The reason given by one general extension vice president who disagreed was that he felt that all levels of organization are critical. The reasons given by the two deans of merged extension services were similar.

The question asked for the most critical level in the organization in the process of change in clientele groups. These men chose to emphasize all levels, which in the final analysis could be interpreted as not in disagreement with the general thought implied in the question.

Success In Clientele Behavior Change
Largely Dependent On Local Agent.

Question No. 2 asked: "When planning and implementing change in audiences of the Cooperative Extension Service, the success of the learning experiences is largely dependent on the capability and interest of the change agent or local leader."

Response is tabulated in Table 3 below.

<table>
<thead>
<tr>
<th>Type of Extension Service</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Comment</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>General</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Merged</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>12</td>
<td>9</td>
<td>23</td>
</tr>
</tbody>
</table>
The responses of all types of extension services were in general agreement. Cooperative Extension personnel involved six who strongly agreed and three who agreed. General extension personnel reported seven who agreed or strongly agreed while two disagreed.

One general extension administrator who disagreed gave reasoning which did not appear to follow logically in that he stated, "It depends on both the local staff and specialists." The author does not take issue with this point.

Communication In Cooperative Extension Service Is A Problem.

Question No. 3 asked: "A major problem in most Cooperative Extension Service organizations is obtaining good communication among persons of common interests and subjects of mutual understanding."

Response is tabulated in Table 4 below.

<table>
<thead>
<tr>
<th>Type of Extension Service</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Comment</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>General</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Merged</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>3</strong></td>
<td><strong>1</strong></td>
<td><strong>12</strong></td>
<td><strong>7</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

TABLE 4
Response Summary That Communications On Common Subjects Is A Problem In The Cooperative Extension Service
Nineteen of the twenty-three responses agreed or strongly agreed with the importance of communication problems.

Of the three respondents who disagreed, the general extension administrator said the problem is not major among persons who have common interests and subjects of mutual understanding. The two cooperative extension administrators stated communication problems depended on good organization and contacting outside groups. These points are not considered as countervalent to the question generally.

Programming Is The Most Obvious Problem In Most Organizations.

Question No. 4 asked: "Please circle the most obvious problem area presently experienced in your organization."

Response is tabulated in Table 5 below.

<table>
<thead>
<tr>
<th>Type of Extension Service</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Personnel Mgmt.</td>
<td>Program Planning</td>
</tr>
<tr>
<td>Cooperative</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>General</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Merged</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>12</td>
</tr>
</tbody>
</table>
This question was intended to determine the relative importance of the four major areas of administration and organization behavior. Practically all answers centered on programs, their planning or implementation. It appears that the only significance that can be attached to this response is the total importance of programming. Only two considered other areas.

This response was subject to debate on the basis that these appeared to be traditional answers to self-declared extension problems. Here it should be emphasized that the theoretical models were intended to place more emphasis on locating the right people in the right position at the right time---e.g. personnel management. Only one respondent agreed....and with similar rationale.

 Likewise, the communication concepts embraced in the theoretical models would place more emphasis on the reporting internally to define program needs and progress; and the reporting externally to the publics who will help prescribe needs and provide program funding. Conceptually the function of program implementation would follow logically after programs are communicated and funded.

Theoretical Models Appear To Provide Solutions To Problems.

Question No. 5 asked: "From the dissertation description, it would appear that the theoretical models would provide solutions in the above problem area."

Response is tabulated in Table 6 on the following page.
Seventeen of the twenty-three respondents agreed or strongly agreed that the theoretical models presented would provide solutions to the problems which they listed chiefly as program planning and implementation.

Four chose not to comment. One, however, supported his no comment position by saying, "...It may be futile to search for the ultimate or all inclusive solution to extension problems via its organizational structure." One general extension administrator disagreed stating, "Should increase motivation and recognition within the university and state; consequently should augment essential resources." It is the author's opinion that his rationale is not self-sustaining, and would probably follow better on an "agree" answer. Possibly it is respondent error. The same was true with the Cooperative Extension Director's disagreement.

### Table 6

**Response Summary**
**That Models Offer Solutions**
**To Stated Problems**

<table>
<thead>
<tr>
<th>Type of Extension Service</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Comment</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>General</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Merged</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>16</td>
<td>1</td>
<td>23</td>
</tr>
</tbody>
</table>
The following positive comments complement and support positions of agreement taken by the respondents. The subject areas thus add to the depth of analysis of this very critical question.

Four respondents pointed to the models helping to be able to identify program needs and the ability to focus both staff capabilities and other resources toward the establishment of priorities and solutions. Similarly, the ability to group people and resources into mutual or common interests among widely diversified social needs would aid in more expedient communication and accomplishment of objectives.

Several other responses centered on the organization administration roles, efficiency and accountability being improved with the "clear cut" structural models. One administrator pointed out that the area staff organization appeared weak and should be studied further.

Conclusively then, the theoretical organization models were accepted favorably as a methodology that could help to solve the problems of contemporary extension services, whether they be cooperative, general, or merged. Deductively then, these models hold promise for The Ohio State University and its outreach.

Planning Of Merger Appears To Be Helped By Models.

Question No. 6 asked: "If an institution were planning a merger to combine general and cooperative extension services, use of these theoretical models could help bring about such a merger."

Response is tabulated in Table 7 on the following page.
Twenty of the twenty-three respondents were in agreement that the theoretical models could help bring about a merger if an institution was in the planning stage. The comments supporting affirmative or positions of agreement appeared to divide into four groups: organization support, programming, recognizing urban needs, and other.

The ability to differentiate counties and to recognize urban and metropolitan needs attracted the most respondent attention. One non-merged administrator stated, "There is flexibility in the concept of rural, urban, metro models which would permit field office staffing without losing the advantage of present Cooperative Extension Service organization." Another non-merged administrator commented, "Response to local needs in the broadest sense would result in both new clientele groups and more use of colleges throughout the university." "Differences between Extension services would tend to be less marked until the reasons for maintaining separate organizations will be few."
The recognition that metropolitan areas require special competencies, skills, and expertise was helpful. "Anticipating that extension specialists can provide everything to everybody is fallacious thinking." Another concluded, "Design appears to meet modern needs of various audiences and encourages focus and relevancy."

Organizational support included such replies as, "There must be total support from the President and the authority given to one position for direction of merger." "These models provide what appears to be a logical means for extending the general extension portion of the university to the local level under a central or combined chain of command," stated a non-merged administrator.

The respondents who referred to improved programming said care must be taken not to undersell the staff and oversell the clientele and thus not be able to deliver promised programs. Another administrator said, "It provides an understandable framework for university personnel, differentiates role concepts and expectations; and as a taxonomy system it allows for the utilization of specialists who can closely identify with one or more of the competencies needed in geographic or subject matter areas."

Conclusively then, the theoretical models were accepted favorably as a methodology to help bring about a merger if an institution was receptive to planning same. Deductively then, these models would hold promise for The Ohio State University if it were planning to merge its extension outreach.
Models Also Appear Helpful To Non-Merged Extension Service.

Question No. 7 asked: "If an institution were not planning a merger, the use of these theoretical models could help improve its Cooperative Extension Services."

Response is tabulated in Table 8 below.

<table>
<thead>
<tr>
<th>Type of Extension Service</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Comment</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>General</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Merged</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>19</td>
<td>3</td>
<td>23</td>
</tr>
</tbody>
</table>

The purpose of this question was to ascertain if the models were thought to be of value to those institutions not contemplating any kind of merger of extension services. Twenty-two agreed or strongly agreed; one administrator chose no comment.

The comments supporting the models as being useful to improve extension outreach in non-merged environments divided generally into two broad groups: those that centered around staffing; and other. The other groups were widely diverse from "Establishes a plan of procedure," to "Provides a useful way to think through the problems."
of society, organizational structure, and programs," to "It provides a means to compare the existing system against a model."

The six administrators who felt staffing was the main benefit gave a variety of reasons: "Information and research feedback by county model;" "Adjustment of staff workload and job assignments;" "The improved relationship between local staff and local needs plus the ability to call on specialized inputs;" "The ability to use supplementary staffing at urban and metro offices to meet needs of those locations is intriguing."

One administrator from a non-merged extension unit expressed his thoughts, "They identify and distinguish among three categories; suggest organizational structure, desirable staff competencies, and operational procedures that should be up to date, functional, and productive."

Conclusively then, the theoretical organization models were accepted favorably as a methodology that could help improve contemporary extension organizational staffing and operational objectives whether they be in a cooperative or general extension system and not planning to be merged. Deductively then, these models would hold promise for the Ohio State University if it were not planning to merge its extension outreach.

Positive Response to Question No. 8

Question No. 8 asked for the administrator to give his general impression of the use of the theoretical models as a methodology to expedite change in the Cooperative Extension Service under the assumption that change was desirable.
The response of affirmative points divided into four broad groups: Those that pertained to the research conducted; those that pertained to the level of extension position in the hierarchy of the university; those that pertained to the operational organization; and the miscellaneous or other individual points.

Some of those that referred to the research emphasis said, "A substantial contribution to the body of classified knowledge in Extension;" "The models are based on sound organizational theory;" "A sophisticated approach to a very complex problem. Should appeal to general academic community;" and "The concepts are amenable to improved communications."

Those that responded about the extension position stated that: "Gives administrative direction;" "Establishes a plan;" "Provides a benchmark and a system of structure evaluation;" "The line organization can be more effective;" "The entire Extension operation can be elevated to cabinet rank;" "The image of Extension will be improved;" "It broadens the base of interest and can bring in resources from other sectors of the university."

The responses about operational organization centered around: better clarification of duties; improved staffing competence; good access to technical assistance; grouping similar problems and needs with interest and capabilities; multi-disciplinary approaches to dynamic problems; flexibility of operations; breakthrough of rigidities; minimal costs to change; applicable; minimum insecurity of individuals; won't rock the boat excessively.
The last group noted: improved county leader system; ecological approach to thinking through problems; removes Cooperative Extension Service from purely agrarian standard; classified counties; decision making permitted when action takes place.

All respondents offered at least one affirmative comment; and all but five listed three, while one extended his answer to five. Thus it could be concluded that the respondents did in fact have sufficient interest in the subject and set aside the time to make very valuable contributions to this study.

Negative Response to Question No. 8

Each respondent had an opportunity to formalize his concerns which appeared under "negative points." Of the twenty-three, two offered none; six offered one or two; the remainder listed three. These comments appear to fall into five categories: (1) Supervision or administration concerns; (2) Morale or acceptance concerns; (3) Staffing; (4) Finance or funding concerns; and (5) Other.

Those responses concerned with administration seemed to reach into all levels. For example, at the upper level, there was the expression that the vice president position needed more clarification, that too many persons reported to the technical vice president and that the vice president's position appeared to be limited to a figure-head status. "The top position must report directly to the President," a merged extension administrator emphasized.
At the local level, concern was expressed that too much authority appeared to be available or too much autonomy possible. Another said that county agents were notoriously poor administrators. At the middle level, supervision was referred to as being difficult.

The author would respond that the high level positions could be anything but titular. They were visualized as being the hub of communication and selling effort to keep Extension in the forefront of university cabinet activity; as a major point of political contact; and as a powerful force to receive, screen, interpret, and relate educational activities taking place at the local levels.

The question of degree of power or autonomy at the local level was difficult for the author to assess. Similarly with questions of supervision and area or regional versus county organizations. These were important aspects certainly; but they are beyond the immediate scope of this study. If a study of this type was not clearly delineated and strictly adhered to, it quickly dropped into a miriad of questions, some of which were not answerable without extensive research requiring multi-disciplinary teams of experts.

The author would only comment on administrative capability based on his experience and that is--one cannot tell if another was a good administrator without his first being trained and encouraged, followed by adequate opportunities to try. Questions as to the importance of this role being emphasized and practiced traditionally in the Cooperative Extension Service would be subject to somewhat narrow subjective reasoning.
The subject of acceptance among employees centered around the need to sell the concepts. The "threat to old timers," anxiety and morale of staff, and the limiting of professionalism among county agents; in the author's opinion were tasks no different than selling programs to clientele. One observation based on the author's experience was that older members of an organization could make excellent contributions to changing environments if they were properly conditioned and led. They were not necessarily subject to wholesale discharge or early retirement.

The subject area of staff appeared to be concerned about the new areas such as administrative science, health science, separate staffs at area and state levels and functions of area agents. These were relevant comments, and the solutions were probably more obvious to those within the Ohio State University with its present outreach structure than to external observers. One respondent perceived the assistant agents only in the rural counties. The author recognized this error and has endeavored to clarify that assistant agents could be used in urban and metro models as well. Neither was it intended to discount the importance of the rural county model by illustration of assistant agents.

The subject of fiscal or budgetary support was thought by three administrators to be a problem. Fragmentation of budget, loss of special funding, or the alienation of certain groups were mentioned. Another administrator said that if the university could not respond fast enough to change, the risk of direct line federal agencies taking
over was high. The author would comment only that the latter comment responded very well to the foregoing three concerns. Is Extension going to take on new roles as "risk takers"? If yes, then risks of budget shifts and benefits will need to be anticipated. If not, then the destiny of the Cooperative Extension Service may already be determined.

Summary Comment

This project attracted considerable interest both within and outside the State of Ohio. The questionnaires, as reported above, were well received. The open-ended questions provided opportunities for Extension administrators to set forth their thoughts. Generally the comments were complementary or paralleled the hypotheses. They supported the theoretical organization models as in fact offering a methodology that was new and applicable to the body of classified Extension knowledge.

Much of the commentary responses were questions or suggestions as to further detail or information needed. Here the author wants to reiterate that this project was intentionally scoped to look at what is commonly referred to as a "first pass or first cut" theoretical model. The purpose was to investigate possible, pertinent and feasible concepts. To drop into second level or second cut details too early only blurs the initial attempt and usually causes premature rejection of potentially pertinent inputs to the systems analysis technique.
Secondarily, to extend the subject area only very little usually requires a disproportionately large incremental input of expertise, time, and travel. Normally this requires a team effort looking at several areas at the same time with different experts so as to gain lateral vision and horizontal perspective. This was beyond the limits of this study. However, there are many possible follow-on studies which now become clear. The priority and size of these would depend on the overall objectives and the time horizons desired. These are in the next and final chapter.

As mentioned above, this study did venture into new aspects of Extension and investigated the application of new elements and concepts in land grant university education. In a descriptive or non-statistical type of study, much more weight rests on the quality of literature review; skill of the researcher; and the questionnaire response. As this study progressed, the field testing portion increased as the unknown or uncontrollable activity. In the final analysis, however, the response by mail was so good that the second and third alternatives of in-depth interviews and intra-Ohio survey activities were deemed not necessary. Four more questionnaires were returned after the deadline which brought total response to seventy-nine (79) percent.
CHAPTER VI

SUMMARY, CONCLUSIONS
AND IMPLICATIONS

Generally the capabilities of the agricultural sector of the United States have been described as having served well the needs of all mankind. From an economic point of view, the quality and costs of food and fiber have improved greatly over time. The output per unit and the technological infusion has been greater in agriculture than in other sectors of our economy. If these assumptions were accepted, then the Cooperative Extension Services nationally as well as in Ohio, have been successful in making major contributions to this progress.

However, questions have begun to arise comparing the whole environment of social benefit to agriculture generally, and to the Cooperative Extension Service in particular. New dimensions have taken shape. New pressure groups have caused new forces of change. Questions have been raised such as, "Do displaced rural people add to the problems of urban poor?"; "If millions of dollars can be spent subsidizing agriculture or supporting Cooperative Extension Services, why can't resources be implemented to correct much larger and seemingly more pertinent problems of urban welfare and metropolitan development as they relate to all of society?"; "How can the total resource bases of land grant institutions be used to provide broader social benefits?"; "Why can't the same success of Extension in rural America be transfused
into urban America?" Thus it can be seen that if other assumptions were accepted, then the Cooperative Extension Services could be brought under attack as being less than successful.

There has been much written about the Cooperative Extension Services trying to improve and change. The literature indicated several schools of thought as to the future of the Extension Service generally. These seemed to fall at opposite poles. Typical questions posed were: "Should the Cooperative Extension Service provide technical information that is current and decisive, or should it not take sides on issues?" "Should it provide leadership in coordination and planning, but delegate action and implementation to others thereby avoiding criticism, complaint, or risk of failure?" "In other words, should the Cooperative Extension Service take active risks or should it minimize its exposure still being careful not to lose the traditional image of the Cooperative Extension Service of being change oriented?"

The literature also indicates several schools of thought as to the role of the university in social change. Should it take leadership and provide a vocal forum for change but be limited to a level of theoretical dialog? Or should the university become a real activist of change joining in with pressure groups to move society?

The literature indicates further paradoxical positions as to the role of the university in its urban setting. Should a large university stay aloof within the intellectual sphere, or should it recognize that it is an integral part of that local economy financially, sociologically, and politically?
There also has been extensive literature about the value and future trends in continuing education and general extension organizations. The libraries of higher education contain journals and philosophical writings trying to define education and to analyze the objectives and benefits of learning. An impending collision has been predicted for the path taken by informal education and the current structure of formal education in the United States. Land grant institutions have referred to their charter to serve all mankind, but they are being challenged more and more about unfulfilled promises.

If these polemic positions were in fact true; and if there were rigidities in the traditional education and extension structures which precluded flexibility; and if society did, in fact, demand prompt political action and social reform; and if government programmers did fail to see the benefits and expediencies of utilizing existing organizations; what appeared to be needed was a whole new methodology to bring the many variables together in a dynamic environment.

Thus the problems of The Cooperative Extension Service nationally, as well as in Ohio, were viewed in this study as being similar to the problems faced by a large, well-established corporation which has been successful during a generation or so of dynamic leadership. However, the organization, expertise, products, services, facilities and locations were beginning to be threatened because of changing total markets, shifting audience segments, new technologies, new concepts, geographical shifts, and organized but flexible competition hitting traditionally solidified areas.
Background of the problem included a brief history, recent developments through the national report, "A People and A Spirit" and the Ohio report by Battelle Memorial Institute outlining the pressures for change.

The specific purpose of this research project was to develop a theoretical organization model to improve the total Extension outreach of The Ohio State University. It was understood that the University, through its various extension thrusts and continuing education programs, was recognized for its excellence both within the state and nationally when compared with other states.

However, it was pointed out that organizations which get caught up in very dynamic environments have an increasingly difficult time identifying the problems, let alone trying to arrive at feasible solutions. It is from this vantage that concepts proven in other disciplines were thought to offer dramatic new insights into anticipating, identifying, analyzing, classifying, and solving the problems of educated man. It was hoped that unorthodox solutions to orthodox problems would thus become possible through greatly improved capabilities of concerned people in the extension outreach organizations.

Two of the major variables considered in building a theoretical model were location of change and the change agent or personnel. These needed to be considered at all levels of activity, e.g. local, area or regional, state, and national.

Since the Cooperative Extension Service in Ohio was heavily agriculturally oriented and funded, and since it was staffed largely
with traditional problem solving personnel and capabilities; the model to be tested was limited to encompass the best of the past utilized in the still applicable areas; but also sufficiently flexible to allow for whole new concepts to be funded, staffed, and tried.

One method not defined in the literature, but based on the author's research and experience was to restructure the local levels of contact into new definitions. Counties were hypothetically redefined as METRO COUNTIES, RURAL COUNTIES, and URBAN COUNTIES. Those counties that are of predominantly industrial and urban composition were called METRO COUNTIES. Other counties that are primarily agricultural were classed as RURAL COUNTIES, and those in between were referred to as URBAN COUNTIES because they are still primarily agriculture but contain several growing municipalities.

Objectives

The specific objectives of this study designed to develop a theoretical organization model to improve the Extension outreach of the Ohio State University included the following:

(1) Describe in detail the current status of the total University Extension outreach programs now in effect in the various colleges and regional campuses of The Ohio State University.

(2) Identify, describe, and dissect for comparative study, the concepts of Extension, systems analysis concepts, marketing concepts, behavioral concepts, business cost-benefit analysis and dynamic environment decision-making concepts.

(3) Describe in text and illustrations the theoretical models for each level of Extension — state, area, and county.
(4) Define the line organization, the staff organization, and the communication network, as they relate to formal and informal organization theory.

(5) Field test the models with a population of thirty-four administrators of both Cooperative and General Extension organizations in twenty-two land grant institutions in the eastern United States.

Methodology

Using literature review and personal interview techniques the current status of Extension outreach of the University was described as a basis of departure.

Concepts from other disciplines that were thought to be pertinent were related to Extension objectives and benefits, or disadvantages, as seen by the author or other interested reviewers. Proven principles of "Systems Analysis" were used.

Again using literature review, experience, observation and interview techniques; the theoretical models were developed, designed, and illustrated. Critical elements and variables were identified. The formal and informal relationships and communication networks were outlined briefly.

The models were presented along with supporting written text. The report draft was refined and improved and was then exposed to experts for constructive suggestion and reactions. The first four chapters, or approximately 120 pages of the draft were reproduced, bound and mailed to each expert along with a cover letter and questionnaire.
The experts were defined as high level administrators of Extension in state universities and land grant colleges. This suited the first criteria that the institution must have an Extension outreach and be a comprehensive university complete with professional degree granting facilities.

The institutions were located in midwestern, southern, eastern and southeastern states, generally within the boundaries circumscribed by the four states of Minnesota, Louisiana, Georgia, and New Jersey. This complied with the second criteria that general subject and audiences of the outreach must be similar in the aggregate with Ohio. Some of the sub-criteria considered included: size, land use, population, urban development, agricultural production, resource development, industrial development, etc.

The third criteria was that the experts should be able to offer perspective from both the merged general and cooperative extension service; as well as in the independent cooperative extension and independent general extension service. The total of states, twenty-two, included fourteen with separate extension services. The eight states with merged extension services included: Wisconsin, West Virginia, Missouri, Georgia, Delaware, Alabama, Iowa, and Virginia.

Each of the above recipients was offered no incentive to respond. Recognizing the value of the time factor in reading 120 pages and responding, it was felt that response would be encouraged through a second contact. The time limit of one month after anticipated receipt
by the expert was selected as a non-response cut-off date. In other words, anyone not responding by mail or phone within thirty days plus five days for mailing was considered a non-respondent. Mailing date was April 28, 1971. The response from non-merged extension administrators was sixty-nine (69) percent. The response from administrators of merged institutions was sixty-three (63) percent.

Conclusions

(1) The respondents in the field test were supportive of the thesis that the theoretical models could provide assistance as a methodology to improve the extension outreach in both merged and non-merged organizations.

(2) The theoretical models could assist in bringing about a merged extension service where a non-merged structure now exists. If no merger was contemplated, the models were confirmed as still being applicable.

(3) The importance of the local level and change agent were confirmed as being the most critical variables in the developing new programs and implementing other programs.

(4) Program planning and implementation were identified as the major problems. It was concluded that the models could help solve these problems.

(5) The use of other proven concepts from the business and industrial world was considered a contribution to the body of classified Extension knowledge.
(6) The structure of informal and formal line and staff organizations was felt to be applicable and adaptable to the Extension Service.

(7) The elevation of Extension to cabinet level rank was thought to aid in the communications and image building process; and provide a more equitable status with resident teaching and research personnel.

(8) It follows deductively that since the concepts advanced in this dissertation have been confirmed as providing valuable contribution to the body of knowledge for all Extension and they appear in fact to be applicable; then these concepts should be able to provide significant inputs into the future planning of the Extension outreach from the Ohio State University.

(9) By similar logic, the concepts advanced in this dissertation having been confirmed through a very large response from deans or directors in the United States, certainly appears to be generalizeable to other land grant universities.

Recommendations

Based on the research prior to the field test and confirmed by the field test, the theoretical models conceptually offer an opportunity to improve the outreach of the Cooperative Extension Service in Ohio. We suggest the following order for implementation.

(1) The eight metropolitan counties were identified. We recommend the metro model concept be initiated as soon as possible because regardless of activity and programs to date; these are the locations where the greatest divergence exists between capability of
Cooperative Extension Service and social need, and between the present programs of Cooperative Extension Service and the demands of direct federal program funding.

(2) Begin to reorganize and develop an internal management consulting team of experts who can identify, research and advise state administrators on subjects of profiles by audience segments, demographic groups and geographic coverage. This is needed for second and third level details of planning and staffing feasibility.

(3) Identify definitely those counties to be classed as rural and begin to restructure those organizations in accordance to the model concepts. Here a minimum of change is expected.

(4) Begin to identify the leaders who can reorganize the area and state levels into administrative and technical staff units.

(5) Tentatively identify urban counties and classify them according to change, rapid or slow; adjacent to rapid or slow changing counties; etc. Develop a system to profile and monitor the change that takes place in urban counties. Implement the urban model concepts along with other research findings as to program needs, funding and sources.

(6) Plan and initiate new in-depth retraining and relocation programs to develop innovational attitudes; to further multiply output with lay persons and paraprofessionals; emphasize planning, coordination, and reporting; and generally improve their roles and morale.

(7) Initiate an aggressive communications program-reporting internally to motivate employees, and reporting externally to develop an image of positive action among constituents, voters, and legislators.
To this point nothing has been mentioned or inferred about the merged general and cooperative extension service. This was beyond the scope of this study. However, if a bold thrust to unite these units were considered, the following points would be suggested.

(8) Design and implement a study to define the appearance, organization and objectives of the proposed merged service as described by the members of the merger. This would be a descriptive study.

(9) Organize a research team to prescribe who and how to bring about a merger. Identify the power structures, biases, individual insecurities, elements to be compromised, those not to be compromised. Describe the pressures and residuals, legal constraints and funding sources. This would be a feasibility study to implement a merger.

Epilogue

Thus the conflicts of the proportionally declining recognition of the Cooperative Extension Service voiced in the popular and professional press, the Battelle Report, and individual comment continues. However, also continuing are the strong lobbies supporting agricultural programs, education and Extension. Here in the State of Ohio these offer some very real and obvious manifestations; and some very subdued and subtle implications to change.

In conclusion it has been stated several times above that the State of Ohio, The Ohio State University, its Extension outreaches all have been indeed fortunate to have good leadership and funding. The intent of this study has been to be as positive and yet as objective
as possible in reporting the accomplishments, the goals, and the
dproblems up to the current time frame. Where constructive comment
was made, it was intended to be used as basis on which to offer a
solution—"Built-in rigidities of the institutions and established
power structures can tend to inhibit progress." ..."The more rigid
authoritarian systems that have pervaded our past are not equipped to
cope with the constancy of change." ..."Organizations that get caught
up in very dynamic environments have an increasingly difficult time
identifying problems, let alone prescribing solutions."

The correct timing of any venture is paramount to its success.
We conclude the time is right. We conclude the theoretical models do
offer an applicable methodology.
APPENDIX A

RESPONSE INSTRUMENT

To Evaluate The Theoretical Extension Structure Models
Presented In James R. Miller's Dissertation

Please Circle Your Answer

(1) If the process of change is to take place in clientele groups, the level of CES organization which is most critical is the local or county level.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>No Comment</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

Why?

(2) When planning and implementing change in audiences of CES, the success of the learning experiences is largely dependent on the capability and interest of the change agent or local leader.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>No Comment</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

Why?

(3) A major problem in most CES organizations is obtaining good communication among persons of common interests and subjects of mutual understanding.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>No Comment</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

Why?
Response Instrument Con't.

(4) Please circle the most obvious problem area presently experienced in your organization.

Personnel  Program  Program
Management  Planning  Implementation  Reporting  Other

Why?

(5) From the dissertation description, it would appear that the theoretical models would provide solutions in the above problem area.

Strongly  Disagree  Disagree  No  Comment  Agree  Strongly  Agree

Why?

(6) If an institution were planning a merger to combine general and cooperative extension services, use of these theoretical models could help bring about such a merger.

Strongly  Disagree  Disagree  No  Comment  Agree  Strongly  Agree

Why?

(7) If an institution were not planning a merger, the use of these theoretical models could help improve its Cooperative Extension Services.

Strongly  Disagree  Disagree  No  Comment  Agree  Strongly  Agree

Why?
(8) Please give your general impression as to the use of the theoretical models as a methodology to expedite change in the Cooperative Extension Service, under the assumption that change is desirable.

Affirmative Points:

(1)

(2)

(3)

Negative Points:

(1)

(2)

(3)

(9) Please circle the type of Extension outreach which your institution employs.

Merged Non-Merged

If you do not wish to be contacted further by phone, or do not want your comments known, do not sign here. If your position is otherwise, your signature will be helpful.

Thank you for your time.
April 28, 1971

Dr. Fred R. Robertson  
Vice President of Extension  
Director, Cooperative Extension Service  
Auburn University  
Auburn, Alabama 36830  

Dear Dr. Robertson:

You may remember our correspondence late last year. I know you have a very busy schedule, but I sincerely hope it will permit you to help me.

Attached is a draft of the first four chapters of my doctoral dissertation. The fourth chapter is the most important from the standpoint that we are seeking your expert critique on that subject. Chapter II states the problem.

The subject of overall Extension merger is not new; but we feel the use of the theoretical county models to facilitate the merger may be a contribution to the body of classified knowledge. In other words, there has been a lot of writing and dialog over the needs and voids of Extension new and old. Here is presented a methodology to help Extension to achieve some of these goals.

Dr. Robertson, if you will try to devote some "think time" to this project, both Dr. Robert McCormick, my adviser, and I will deeply appreciate your comment on the enclosed questionnaire. We would like to summarize the response as soon as possible.

Most respectfully,

James R. Miller  
Director  

JRM:cs  

Encl.
Dr. Fred R. Robertson  
Vice President of Extension  
Director, Cooperative Extension Service  
Auburn University  
Auburn, Alabama 36830

Dear Dr. Robertson:

Two weeks ago we mailed via first class postage a letter covering a request for you to please review an enclosed dissertation draft by James R. Miller. We are following up at this time to reconfirm that you did receive that package. If you did not, please phone us promptly at 614-422-8300; as it is imperative to this research project that you are included.

We appreciate your busy schedule, but we hope the subject of this dissertation will be of sufficient interest to you and the future of Extension that your time taken to respond will be well spent. Thank you.

Cordially yours,

Robert W. McCormick  
Assistant Vice President  
Continuing Education

P.S. Enclosed is another questionnaire and return envelope for your convenience.
APPENDIX B

LIST OF ADMINISTRATORS AND INSTITUTIONS

COMPRISING RESEARCH POPULATION

Integrated or Merged Extension Service

(1) Auburn University
   Auburn, Alabama 36830
   
   Dr. Fred R. Robertson
   Vice President of Extension
   Director, Cooperative Extension Service

(2) University of Delaware
    Newark, Delaware 19711
    
    Dr. Samuel M. Gwinn
    Director of Extension

(3) University of Georgia
    Athens, Georgia 30601
    
    Dr. J. W. Fanning
    Vice President for Services

(4) Iowa State University
    Ames, Iowa 50010
    
    Dr. Marvin A. Anderson
    Dean, University Extension Division

(5) University of Missouri
    Columbia, Missouri 65201
    
    Dr. C. B. Ratchford
    Vice President for Extension
Administrators and Institutions Cont'd.

(6) Virginia Polytechnic Institute
    Blacksburg, Virginia 24061

    Dr. W. E. Skelton
    Director, Cooperative Extension Service

(7) University of West Virginia
    Morgantown, W. V. 26505

    Dr. B. L. Coffindaffer
    Director, Extension Service
    294 Coliseum

(8) University of Wisconsin
    Madison, Wisconsin 53706

    Dr. George B. Strother
    Acting Chancellor, University Extension

Non-Integrated, Non-Merged Extension-Service

(1) University of Arkansas
    Little Rock, Arkansas 72203

    Dr. C. A. Vines
    Director, Cooperative Extension Service

    Dr. Hugh Mills
    Dean of Continuing Education
    University of Arkansas
    Fayetteville, Arkansas 72701

(2) Clemson University
    Clemson, South Carolina 29631

    Dr. Wayne T. O'Dell
    Director, Cooperative Extension Service
Administrators and Institutions Con't.

(3) University of Illinois
    Urbana, Illinois  61801

    Dr. Stanley Robinson
    Dean, University Extension Division

    Dr. John B. Claar
    Director, Cooperative Extension Service

(4) University of Kentucky
    Lexington, Kentucky  40506

    Dr. R. D. Johnson
    Dean, University Extension Division

    Dr. Charles E. Barnhart
    Director, Cooperative Extension Service

(5) Louisiana State University
    Baton Rouge, Louisiana  70803

    Dr. Lionel Pellegrin
    Director, Division of Continuing Education

    Dr. John A. Cox
    Director, Cooperative Extension Service

(6) University of Maryland
    College Park, Maryland  20742

    Dr. Stanley Drazek
    General Extension Service

    Dr. Robert E. Wagner
    Director, Cooperative Extension Service

(7) Michigan State University
    East Lansing, Michigan  48823

    Dr. Armand Hunter
    Dean, University Extension Division

    Mr. George S. McIntyre
    Director, Cooperative Extension Service
Administrators and Institutions Con't.

(8) University of Minnesota
   Minneapolis, Minnesota 55101
   Dr. Willard L. Thompson
   Dean, General Extension Division
   Dr. Roland H. Abraham
   Director, Cooperative Extension Service

(9) University of Mississippi
   State College, Mississippi 39762
   Dr. W. M. Bost
   Director, Cooperative Extension Service

(10) North Carolina State University
     Raleigh, North Carolina 27607
     Dr. E. W. Jones
     Dean, University Extension Division
     Dr. George Hyatt, Jr.
     Director, Cooperative Extension Service

(11) Pennsylvania State University
     University Park, Pennsylvania 16802
     Mr. F. B. Fisher
     Director, Continuing Education Division
     Mr. Thomas H. Patton
     Director, Cooperative Extension Service

(12) Purdue University
     Lafayette, Indiana 47907
     Dr. Earl Butz
     Vice President for Extension
     Dr. Howard G. Diesslin
     Director, Cooperative Extension Service
Administrators and Institutions Con't.

(13) Rutgers State University
    New Brunswick, New Jersey 08903

    Dr. Hamilton Stillwell
    General Extension Service

    Dr. John L. Gerwig
    Director, Cooperative Extension Service

(14) University of Tennessee
    Knoxville, Tennessee 37901

    Dr. James E. Arnold
    Dean, University Extension Division

    Dr. Vernon W. Darter
    Director, Cooperative Extension Service
    Box 1071
APPENDIX C

NAME, POSITION, AND LOCATION OF

OHIO COOPERATIVE EXTENSION SERVICE

EFFECTIVE MAY, 1970

Director - Dr. Roy M. Kottman
Associate Director - Dr. Orlo L Musgrave
Assistant Director, Administration - Dr. George R. Gist, Jr.
Assistant Director, Resource Development and Public Affairs -
Dr. Riley S. Dougan
Assistant Director, Agricultural Industry - Dr. Austin B. Ezzell
Assistant Director, Home Economics - Mrs. Naurine McCormick
Assistant Director, 4-H
Assistant Director, Staff Development and Program Analysis -
Dr. Clarence J. Cunningham

Area Supervisor, Canfield - Mr. John P. Parker, Jr.
Area Supervisor, Defiance - Mr. James H. Limbird
Area Supervisor, Eaton - Mr. George F. Wadlington
Area Supervisor, Fremont - Mr. Frederick T. Grimm
Area Supervisor, Jackson - Mr. Charles Knotts
Area Supervisor, McConnelsville - Mr. Joe D. Pittman
Area Supervisor, Mt. Gilead - Mr. Francis Dalrymple
Area Supervisor, Wapakoneta - Mr. David R. Miskell
Area Supervisor, Washington C.H. - Mr. E. Ivor Jones
Area Supervisor, Wooster - Mr. Thomas J. McDonough

County Extension Agents listed according to the following key:

(1) County Extension Agent, Agriculture
(2) County Extension Agent, Home Economics
(3) County Extension Agent, 4-H
(4) County Extension Agent, 4-H and Home Economics
(5) County Extension Agent, 4-H and Agriculture
CANTFIELD AREA

Area Supervisor

Mr. John P. Parker, Jr., 430 Lisbon Street, Canfield 44406
Phone - 216-533-3453

Area Extension Agents

Area Extension Agent, 4-H. . . . . . . . . . . . Mr. Lee Kirkbride
Address - 430 Lisbon Street, Canfield 44406
Phone - 216-533-3453

Area Extension Agent, Animal Industry. . . . . Dr. Charles M. Martin
Area Extension Agent, Horticulture Industry. . . Mr. Fred K. Buscher
(See Wooster for addresses of two agents listed above.)

County Extension Agents

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<td>(2) *Mrs. Martha A. Cetina...</td>
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<td>Carroll</td>
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<td>(2) *Miss Karen Saylor........</td>
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<td>*Mr. Paul H. Gipp.......... 216-424-7291</td>
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<td>(3) Mrs. Sharon Snelling.......</td>
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<td>*Mr. William B. Phillips.... 216-533-5539</td>
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<td>(3) Mr. A. Joseph Warner......</td>
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**County** | **Name** | **Phone** | **Address**
---|---|---|---
Portage
(1) Mr. Eldon Hoffman | 216-296-6432 | Federal Building
(2) *Mrs. Frances Hinman | | Ravenna 44266
(3) *Mr. Micheal B. Ruckman | |  
Stark
(1) Mr. Wilbur C. Roberts | 216-454-5149 | 216 Post Office Bldg.
(2) *Mrs. Marion B. Smyth | | Canton 44702
Trumbull
(1) Mr. Byron P. Hartley | 216-394-9246 | Federal Building
(2) *Miss Marjorie Mealy | | Warren 44482
(3) *Mr. Gregory Briggs | |  

*Assumes leadership on counseling prospective students in agriculture and home economics.*
**DEFIANCE AREA**

**Area Supervisor**

Mr. James H. Limbird, North Clinton Street, Route 2, Defiance 43512
Phone - 419-784-3838

**Area Extension Agents**

- **Area Extension Agent, Agronomy**: Mr. Marion E. Kroetz
- **Area Extension Agent, Farm Management**: Mr. Karl V. Clemons
- **Area Extension Agent, 4-H**: Mr. Melvin K. Krill
- **Area Extension Agent, Community Resource Development** (See Fremont For Address): Mr. Raymond Schindler

Address - North Clinton Street, Route 2, Defiance 43512
Phone --- 419-784-3838

**County Extension Agents**

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<td>(2) *Mrs. Pauline Vetter</td>
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<td>(1) *Mr. Gilbert W. Woodburn</td>
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<td>(2) *Miss Laura Zepernick</td>
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<td>(1) Mr. Donald Kimmet</td>
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<td>(2) *Miss Virginia I. Zirkle</td>
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<td>Van Wert</td>
<td>Mr. George E. Ropp</td>
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<td>(1) *Mrs. Joyce T. Beard</td>
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| Williams               | Mr. Gerald Stanley          | 419-636-2640   | Court House      |
|                        | (1) *Mrs. Irma G. Fitzenrider |            | Bryan 43506      |

| Wood                   | Mr. Richard B. Farison      | 419-354-3211   | 227 N. Prospect St. |
|                        | (2) *Mrs. Frances Bovard    |                | Bowling Green 43402 |
|                        | (3) *Mr. Marvin Schott      |                |                  |

---

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**EATON AREA**

**Area Supervisor**

Mr. George F. Wadlington, 1394 East Main Street, Eaton 45320  
Phone - 513-456-5508

**Area Extension Agents**

Area Extension Agent, Agronomy . . . . . . . . . Mr. Alfred Baxter  
(See Washington C.H. For Address)

Area Extension Agent, Farm Management . . . . . Mr. R. Donald Moore

Area Extension Agent, 4-H . . . . . . . . . . . Mr. Gilbert Atkinson

Area Extension Agent, Animal Industry, Swine Mr. David Gerber  
(See Washington C.H. For Address)

Area Extension Agent, Animal Industry . . . . . Mr. Edwin Zorn  
(Also serves Washington C.H.)

Area Extension Agent, Community Resource Development  
(See Washington C.H. for Address) . . . . . Mr. Kaye Bartlett

Address - 1394 East Main Street, Eaton 45320  
Phone --- 513-456-5508

**County Extension Agents**

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<td>*Mr. Roy L. Titkemeyer.....513-892-4488</td>
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<td>*Mrs. Leona S. Markel........</td>
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<td>*Miss Mary V. Earmer.........</td>
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<td>*Mr. Michael D. Lokai........</td>
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<td>*Mr. Harold L. Brown.........</td>
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<td>Miami</td>
<td>*Mr. Norman Arnold..........513-332-1213</td>
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<td>*Mrs. Patricia J. Long.......</td>
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County

Montgomery
(1) *Mr. Marion W. Wallace........513-224-9654 1001 S. Main Street
(2) *Miss Iris E. Macumber.........
(3) Mr. John F. Vermilya...........

Preble
(1) *Mr. Paul L. Gerstner...........513-456-3828 Court House
(2) *Miss Mary Louise Augenstein.
(3) Mr. Charles O. Replogle......

Warren
(1) *Mr. Berman Ross.................513-932-1891 777 N. Columbus Ave.
(2) *Miss Lilah G. Miles...........
(3) Mr. Philip D. Gillespie.....

*Assumes leadership on counseling prospective students in agriculture and home economics.
FREMONT AREA

Area Supervisor

Mr. Frederick T. Grimm, 1401 Walter Avenue, Fremont 43420
Phone - 419-332-1594

Area Extension Agents

Area Extension Agent, Agronomy..................Dr. Walter H. Schmidt
Area Extension Agent, Farm Management........Mr. Paul Wright
Area Extension Agent, 4-H.......................Mr. Allen Ulrich
Area Extension Agent, Home Economics........Mrs. Leota L. Balsizer
Area Extension Agent, Community Resource Development
(Also serves Defiance).........................Mr. Raymond Schindler
Address - 1401 Walter Avenue, Fremont 43420
Phone --- 419-332-1594

County Extension Agents

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<td>Erie</td>
<td>Mr. Floren V. James.......</td>
<td>419-626-9440</td>
<td>1200 Sycamore Line</td>
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<td>(2) *Mrs. Gloria C. Horner..</td>
<td>Ext. 253</td>
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<td>419-447-9722</td>
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<td>419-294-3232</td>
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<td>(3) Mr. Larry E. Ralston</td>
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JACKSON AREA

Area Supervisor

Mr. Charles Knotts, 378 East Main Street, Box 32, Jackson 45640
Phone - 614-286-3409

Area Extension Agents

Area Extension Agent, Agronomy .... Mr. John F. Underwood
Area Extension Agent, Farm Management .... Mr. William P. Smith
Area Extension Agent, 4-H .... Mr. Robert D. Plymale
Area Extension Agent, Animal Industry .... Mr. James E. Little
Area Extension Agent, Community Resource Development
(See McConnelsville for Address) .... Mr. William Shaw
Address - 378 East Main Street, Box 32, Jackson 45640
Phone --- 614-286-3409

County Extension Agents

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*Assumes leadership on counseling prospective students in agriculture and home economics.*
McCONNELSVILLE AREA

Area Supervisor
Mr. Joe D. Pittman, 59 North Seventh Street, McConnelsville 43756
Phone - 614-962-2412

Area Extension Agents
Area Extension Agent, Farm Management .......... Mr. Howard Showalter
Area Extension Agent, 4-H . . . . . . . . . . . . Mr. Robert Groves
Area Extension Agent, Animal Industry . . . . . . Mr. Lorin Sanford
Area Extension Agent, Community Resources Development
(Also serves Jackson) . . . . . . . . . . . . Mr. William Shaw
Address - 59 North Seventh Street, McConnelsville 43756
Phone --- 614-962-2412

County Extension Agents

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*Assumes leadership on counseling prospective students in agriculture and home economics.
MT. GILEAD AREA

Area Supervisor

Mr. Francis W. Dalrymple, 27 West High Street, Mt. Gilead 43338
Phone - 419-946-8015

Area Extension Agents

Area Extension Agent, Farm Management........ Mr. Herbert Crown
(Also serves Wapakoneta)
Area Extension Agent, 4-H......................... Mr. James Helt
Area Extension Agent, Dairy Industry............. Mr. Kenneth Rinehart
(See Wapakoneta for Address)
Area Extension Agent, Community Resource Development

Address - 27 West High Street, Mt. Gilead 43338
Phone --- 419-946-8015

Mr. Charles L. Hastings

County Extension Agents:

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* Assumes leadership on counseling prospective students in agriculture and home economics.
WAPAKONETA AREA

Area Supervisor

Mr. David R. Miskell, 10 West Auglaize Street, Wapakoneta 45895
Phone - 419-738-3605

Area Extension Agents

Area Extension Agent, Farm Management . . . . . . . Mr. Herbert Crown
(See Mt. Gilead for Address)
Area Extension Agent, 4-H . . . . . . . . . . . . . . . . . Mr. John Ruoff
Area Extension Agent, Dairy Industry. . . . . . . . . . Mr. Kenneth Rinehart
(Also serves Mt. Gilead)
Address - 10 West Auglaize Street, Wapakoneta 45895
Phone --- 419-738-3605

County Extension Agents

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*Assumes leadership on counseling prospective students in agriculture and home economics.
WASHINGTON C. H. AREA

Area Supervisor

Mr. E. Ivor Jones, 317 South Fayette Street, Washington C.H. 43160
Phone - 614-335-2755

Area Extension Agents

Area Extension Agent, Agronomy ........ Mr. Alfred J. Baxter
(Also serves Eaton)
Area Extension Agent, Farm Management .......... Mr. Bennie White
Area Extension Agent, 4-H ......... Mr. Rodney Pettays
Area Extension Agent, Home Economics .......... Mrs. Beulah M. Hill
Area Extension Agent, Animal Industry, Swine .... Mr. David Gerber
(Also serves Eaton)
Area Extension Agent, Animal Industry .......... Mr. Edwin Zorn
(See Eaton for Address)
Area Extension Agent, Community Resource Development
(Also serves Eaton) ......... Mr. Kaye Bartlett
Address - 317 South Fayette Street, Washington C. H. 43160
Phone --- 614-335-2755

County Extension Agents

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<td>*Mrs. Helen S. Schneider</td>
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<td>Ross</td>
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<td>*Mrs. Lois Jean Bauman</td>
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WOOSTER AREA

Area Supervisor

Mr. Thomas J. McDonough, Ohio Agricultural Research and Development Ctr., Wooster 44691
Phone - 216-262-8176; 216-262-8346; 216-264-1021, Ext. 236

Area Extension Agents

Area Extension Agent, Farm Management . . . . . . Mr. Marshall Whisler
Area Extension Agent, 4-H . . . . . . . . . . . . . . . . . . Mr. James W. Marquand
Area Extension Agent, Home Economics . . . . . . Mrs. Hannah H. Beish
Area Extension Agent, Animal Industry . . . . . . Dr. Charles M. Martin
(Also serves Canfield)
Area Extension Agent, Dairy Industry . . . . . . Dr. Donald E. Pritchard
Area Extension Agent, Horticulture Industry . . Mr. Fred K. Buscher
(Also serves Canfield)
Address - Ohio Agricultural Research & Development Ctr.
Wooster 44691
Phone --- 216-262-8176; 216-262-8346; 216-264-1021, Ext. 236

County Extension Agents

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<th>Name</th>
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<td>Ashland</td>
<td>Mr. Calvin D. Knight........</td>
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<td>*Miss Barbara L. Hubert.....</td>
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<td>Coshocton</td>
<td>*Mr. T. Roy Bogle...........</td>
<td>614-622-2265</td>
<td>704 Main Street</td>
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<td>*Miss Donna Anderson........</td>
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<td>&amp; 621-0445</td>
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<td>&amp; 322-0027</td>
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### WOOSTER AREA CON'T.

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<td>(1) *Mr. Harold K. Thoburn</td>
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<td>Summit</td>
<td>(1) *Mr. Franklin D. George</td>
<td>216-929-4461</td>
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<td>Tuscarawas</td>
<td>(1) Mr. John R. Veley</td>
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<td>Wayne</td>
<td>(1) Mr. R. Dale Glass</td>
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BIBLIOGRAPHY

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