

ADULT AND CONTINUING EDUCATION

THROUGH THE COOPERATIVE EXTENSION SERVICE

Archive version -
check for updates

Warren Prawl
Roger Medlin
John Gross

Adult and Continuing Education Through the Cooperative Extension Service

Warren Prawl, Roger Medlin and John Gross

Library of Congress Catalog Card Number: 84-61413

ISBN 0-933842-00-7

UED 76

Copyright© 1984 by The Curators of the University of Missouri.

Published October 1984 by the Extension Division, University of Missouri-Columbia, Columbia, Missouri. An equal opportunity employer.

Printed in the United States of America by University Printing Services, Columbia, Missouri.

Edited by Brenda Mann Harrison, Agricultural Editor's Office, University of Missouri-Columbia.

Contents

- 5 Preface
- 6 Acknowledgments
- 7 About the Authors
- 8 Introduction
- 9 Dedication
- 10 Chapter 1: Evolution of Extension Service in the United States
- 26 Chapter 2: Cooperative Extension Service's Philosophical Base
- 33 Chapter 3: A Profile of the Cooperative Extension Service
- 47 Chapter 4: Management and Organization Within the Cooperative Extension Service
- 60 Chapter 5: Developing Sound Extension Education Programs
- 81 Chapter 6: Volunteer Leadership in the Cooperative Extension Service
- 102 Chapter 7: Delivering Extension Education Programs
- 119 Chapter 8: Cooperative Extension Service in the 1980 Land-Grant Institutions and Tuskegee Institute
- 143 Chapter 9: A Look at Extension Service Around the World
- 160 Chapter 10: Agricultural Extension Programs
- 172 Chapter 11: Home Economics Extension Programs
- 184 Chapter 12: Extension Service's 4-H and Youth Program
- 197 Chapter 13: Community Resource Development
- 209 Chapter 14: Evaluation in the Cooperative Extension Service
- 224 Chapter 15: Issues and Considerations for the Cooperative Extension Service in the 1980s.
- 237 Chapter 16: Epilogue
- 240 Appendix A: Smith-Lever Act
- 243 Appendix B: Chronological History of Legislation by the United

States Congress Relating to the Cooperative Extension Service in the Land-Grant Universities

- 246 **Appendix C:** Memorandum of Understanding Between the University of Missouri and the United States Department of Agriculture on Cooperative Extension Work in Agriculture and Home Economics
 - 249 **Appendix D:** County Extension Council Law
 - 254 **Appendix E:** EMIS Report from the Cooperative Extension Service, Pennsylvania State University, Six-Month Report for Fiscal Year 1982.
 - 256 **Appendix F:** Arkansas Cooperative Extension Service Narrative Accomplishment Report
 - 259 **Appendix G:** A/E System Forms from Missouri for Fiscal Year 1985
 - 265 **Appendix H:** 4-H 1979: Some National Statistics
 - 268 **Appendix I:** This Is 4-H
 - 269 **Appendix J:** Extension in the '80s, Executive Summary
 - 275 **Bibliography**
-

Chapter Photos

- 10 **Chapter 1:** An early county agent works in the local extension office. (USDA file photo.)
- 26 **Chapter 2:** Missouri farmers gather for a 1983 fall field day at the University of Missouri's Southwest Center, Mount Vernon, Mo. (Duane Dailey photo.)
- 33 **Chapter 3:** Farm women learn more about swine production during a 1976 Farmer Appreciation Tour. (Duane Dailey photo.)
- 47 **Chapter 4:** Management procedures are discussed as part of a 1980 University of Missouri Extension Association meeting. (Duane Dailey photo.)
- 60 **Chapter 5:** Some extension priorities are given top billing during the Missouri Rural Development Leader School conducted in 1978 at Stephens College, Columbia, Mo. (Duane Dailey photo.)
- 81 **Chapter 6:** Betty Feather (right), state clothing and textiles specialist, helps two 4-H members during a Clothing Action Learning workshop at the 1981 State 4-H Week. (Duane Dailey photo.)
- 102 **Chapter 7:** Ed Schwitzky (middle), former area livestock specialist,

brings extension service's message to two farmers in the Show-Me area. (Duane Dailey photo.)

- 119 **Chapter 8:** Television is used as a valuable tool for delivering extension information to Missouri residents by many extension personnel, including Dr. S. Morris Talley (right), state animal husbandry specialist at Lincoln University. (Bill Helvey photo.)
- 143 **Chapter 9:** Natives of Somalia, Africa, are taught how to better use their oxen for field work by Marshall Christy (man with camera), extension agronomist, during his 1979 assignment to the Somalian extension training center. (Delmar Hatesohl photo.)
- 160 **Chapter 10:** Part of Missouri's 1983 corn harvest fills a truck. (Duane Dailey photo.)
- 172 **Chapter 11:** Charles Kleibacker, teacher and designer from New York, instructs Saralee Bury, Ste. Genevieve County, during 1980 fashion design workshop. (Duane Dailey photo.)
- 184 **Chapter 12:** As the 1983 Boone County Fair comes to an end, 4-H members remove their exhibits and ribbons from the Youth Arts building. (Mark Harrison photo.)
- 197 **Chapter 13:** Robert and Vera Haun of Osborn, Mo., work together during a 1980 storm window workshop at Fairport, Mo. (Duane Dailey photo.)
- 209 **Chapter 14:** An exchange of ideas is encouraged at the 1981 annual extension conference at the Livestock Center, University of Missouri-Columbia, Columbia, Mo. (Duane Dailey photo.)
- 224 **Chapter 15:** David Lindell (foreground), area agronomy specialist, demonstrates the planting of soil moisture sensors into a field of soybeans while Henry County brothers Larry Norcross (left) and Lonnie Norcross watch. (Duane Dailey photo.)
- 237 **Chapter 16:** T. Mark Elliott, Jasper County, is one of many farmers who is turning to the computer for more efficient farm management. (Duane Dailey photo.)

Preface

The Cooperative Extension Service has stimulated beneficial changes in the lives of millions of individuals, families and communities for 70 years; and the contribution is widely recognized. Yet, in spite of longevity, success and visibility, extension work is poorly understood. In retrospect this should not be surprising.

The Cooperative Extension Service in the United States is highly decentralized in management and program focus. A continuing theme has been helping local people solve their problems and achieve their goals. In the microview the problems and goals of every person are unique. Therefore, everyone assisted by extension service tends to gain a different image of what the institution is and how it goes about achieving its educational goals. Even veteran professional extension workers find it difficult to describe extension work. In fact a random sample of professional workers representing the different programs and geographic areas would offer widely differing descriptions. State and national leaders face an impossible task in developing statements that describe concisely what the Cooperative Extension Service is and does.

All good teachers use a combination of science and art to stimulate students to learn and act. Extension workers rely more heavily on art than teachers in highly structured situations, particularly where participation is required. Extension workers must create the "teachable moment" as well as use it effectively.

The success of extension work in the United States has prompted essentially all nations to create an extension program. The effort has been strongly encouraged by U.S. Agency for International Development (USAID) and international agencies. Properly, the concept had to be modified to fit into domestic institutions, economics and cultures. Many foreign extension services bear little resemblance to the U.S. institution except for basic purpose.

The authors of this book have many years of successful practice of extension work in the United States and abroad. They understand the theory and practice of extension work. They have resisted the temptation to simplify a complex subject and to offer prescriptions for successful conduct of extension work. The book starts with the "roots" of the Cooperative Extension Service, which still profoundly affect current and future extension programs. The essence of the philosophical underpinnings is captured.

The concept of management *vis a vis* administration bears careful consideration by present and would be extension leaders. The proven principles about program development, conduct and evaluation are clearly described. It is the first book to treat in depth the role of the 1890 land-grant universities and Tuskegee Institute in extension work.

While not the major purpose, the book does provide an up-to-date overview of extension work in the United States today. The book will be a valuable tool for any person trying to either understand a complex institution or become a successful extension practitioner.

Dr. C. Brice Ratchford
Professor of Agricultural Economics
University of Missouri-Columbia

Acknowledgments

Many friends and colleagues have assisted in this five-year project. Some provided information at three different stages or read parts of the manuscript. Others took part in our lengthy interviews at the 1890 institutions. Without their strong support and encouragement over the years, this book might never have been completed. It is beyond our capacity to acknowledge everyone individually.

A note of appreciation is due the administration and the Board of Regents of Kansas State University for making a sabbatical leave available to the senior author, Warren Prawl. It was during this year that research was conducted, and most of the book written.

Special acknowledgment is due the former Dr. C. A. Williams, of Alabama A&M University, who provided much of the information on 1890 institutions. He reviewed the chapter on these institutions and offered numerous suggestions, including corrections of facts and dates. His insight and broad view of the history, development and accomplishments of these colleges was of great value.

Members of the Agricultural Editor's Office, at the University of Missouri-Columbia, were always ready and willing to answer our questions and provide technical guidance, especially Don Esslinger. Our editor, Brenda Mann Harrison, did a superb job of bringing together the materials and styles of three distinctly different writers.

Our students who were taught in the extension education courses offered over the years at Kansas State University, the University of Missouri-Columbia and two universities abroad have made a significant contribution to the book. Their questions, comments and term papers kept bringing up new ideas and materials. At last they will have a text in response to their long-term demands.

Finally, we must express appreciation for the encouragement and support that our wives—Nancy, Donna and Alice—offered over the years. Many other projects and family activities were held in abeyance until this major task was completed.

*Warren Prawl
Roger Medlin
John Gross*

About the Authors

The three authors represent nearly 70 years of extension experience.

The senior author, Warren Prawl, has been deeply immersed in extension service from his days as a 4-H member in rural Kansas in the 1940s. In more than 25 years as an extension professional, he has worked on three continents and in four countries as a teacher, researcher, adviser to students and government extension units, curriculum developer, programmer and administrator.

At Kansas State University Prawl has taught extension courses for 10 years and has served on dozens of graduate student committees. His position as a program and staff development specialist with the Kansas Cooperative Extension Service involves him in evaluation, programming and in-service training activities. He has recently developed a procedure for evaluating county extension programs.

Prawl, who holds an Ed.D. degree from Cornell University, has been on leave from the Kansas Cooperative Extension Service since 1981 for assignment in Tunisia, Africa.

In cooperation with colleagues, Prawl has written many extension bulletins and research reports over the past 15 years. The most recent is a publication titled, "Kansans' Right to Know—108 Years of Extension Education."

Roger Medlin contributed to this book from the viewpoint of an editor. A recipient of an M.S. degree in Journalism from Kansas State University, Medlin has served at his alma mater as chief editor of agricultural publications since 1983. Prior to that assignment, he worked as assistant extension editor from 1967.

Over the years Medlin has worked as a reporter, editor and advertising man with such newspapers as the Salida Daily Mail Record, Colo.; Enid News Eagle, Okla.; Galveston News Tribune, Texas; Evansville Courier Press, Ind.; Houston Post, Texas; and the Wall Street Journal. He also owned a weekly newspaper for a year in North Platte, Neb.

Medlin has spent two years in India as an agricultural information specialist with Kansas State University's project at Andhra Pradesh Agricultural University.

He has worked with Prawl prior to this book on the publication "Kansans' Right to Know—108 Years of Extension Education." He also authored "16 Years in India," a publication on international agricultural programs.

John Gross began his extension career as an associate county agent in Clinton County, Mo., and later served as director and agricultural agent in Harrison County, Mo.

Gross received his Ph.D. degree in adult education from the University of Nebraska-Lincoln in 1969. Since 1967 he has served as professor of extension education at the University of Missouri-Columbia where he earned his master's and undergraduate degrees.

As professor of extension education, Gross has taught courses on the fundamentals of extension teaching of adults, organization and administration of extension, program development and evaluation, and supervising special problems and research in extension education. He has also served as academic adviser to graduate students from 23 countries.

Gross has worked on special assignment with Extension Service, USDA, in Washington, D.C., and on the editorial committee of the Journal of Extension. From 1971 to 1982 he served as chairman of the Extension Education Department at UMC. He retired in August 1984.

Included among Gross's publications are numerous articles in professional journals and a publication titled, "Evaluation Planner for Extension."

Introduction

Many changes have taken place within the Cooperative Extension Service over the past decade. The Expanded Food and Nutrition Education Program (EFNEP), which began operations in 1968, and the U.S. Department of Agriculture Appropriations Act of 1972 both established new and expanded activities for the 1890 land-grant institutions and Tuskegee Institute. The Civil Rights movement, Affirmative Action program and the Equal Opportunity Act of 1964 have had great influence and impact on extension and other adult education activities in recent years. In response to *Hard Tomatoes, Hard Times* (1972) and *The People Left Behind* (1967), two publications critical of some aspects of the Cooperative Extension Service, expanded programs designed to reach larger numbers of low-income, hard-to-reach clientele, have been implemented.

This book represents an effort to bridge the gap between the first 50 years of a conservative, rural-oriented extension service (1910s to the early 1970s) and the more responsive, rapidly changing organization of the 1980s. It builds on and updates the information presented in two widely accepted texts—*Cooperative Extension Work*, by Kelsey and Hearne (1949, 3rd edition 1963); and *The Cooperative Extension Service*, by Sanders (1966).

Early chapters discuss adult and extension education in a historical and chronological sequence. Developmental and educational concepts are used to build the foundation on which the Smith-Lever Act of 1914, the congressional act establishing the Cooperative Extension Service, was based. Later chapters are devoted to organization structures, financial and legal arrangements, a program-development process as well as various delivery and evaluation methods for educational programs.

A portion of the book is devoted to extension service in an international setting. It describes how the U.S. system has been modified and adopted by many countries around the world.

One chapter is devoted exclusively to the role of the 1890 institutions, commonly referred to as the black land-grant colleges. These institutions were assigned a significant new role in extension service in 1972.

In Chapter 15 an attempt is made to identify some of the major issues facing the Cooperative Extension Service in the last 20 years of the 20th century.

Many of the topics addressed in this book are included in extension education courses taught throughout the land-grant university system. Upper division and graduate students in adult education will find the book useful, especially those who choose to pursue a career in the Cooperative Extension Service. Extension professionals at all levels, who number more than 16,000 in the United States alone, may wish to use it as a reference point for reviewing philosophy and principles. International extension faculty and graduate students will find it useful as a point of departure in analyzing the philosophy, principles and structures of their own national organizations.

Dedication

This book is dedicated in the spirit of education to the continued efforts of our contemporary extension workers.



Evolution of Extension Service in the United States

Before adult and continuing education through the Cooperative Extension Service can be unraveled, the evolution of extension service in the United States must be understood. Perhaps the best definition of extension service is an overview of what it does. The following current examples depict extension service in action.

- In the early 1960s the National Broadcasting Company produced a TV documentary about the dying small towns of rural America. One of the examples was Westmoreland, Kan. With a population of less than 500, it was heading fast down the rough road to oblivion. In 1978 the town's people urged NBC to send a crew to take another look at their community and to set the record straight. Westmoreland was a revitalized and growing town.

What had happened? The first program awoke a spirit in Westmoreland's citizens. Working with their county extension director, Al Spencer, they joined a program, called PRIDE, operated by the Cooperative Extension Service of Kansas State University and the Kansas Department of Economic Development. Pride surged throughout the town as the citizens pulled together to rejuvenate their community.

- In a private school for the mentally handicapped near Salem, Ore., volunteers in the extension master gardeners program, operated by Oregon State University Extension and funded by a federal grant, brought new hope to students at the school. Some of those students are now self-supporting, thanks to the knowledge they gained in the program.

- In San Bernardino County, Calif., Mary Marshall, a home economist with the California Cooperative Extension Service, developed and taught a sewing

course for the Spanish-speaking wives of migrant laborers. The course helped the wives overcome language barriers and learn fundamental skills. Many now bring their daughters to the class.

- Enthusiasm for back-to-the-soil living is taking root in unlikely spots across the United States. The trend began in New York, Detroit, Los Angeles, Chicago and Houston where extension personnel provided the agricultural know-how to raise vegetables in rooftop boxes, drainage canals and littered tenement back yards. The idea has spread to other metropolitan areas. As a result, program participants from senior citizens to disadvantaged youth are enjoying the profits of a healthier and money-saving diet.

- Jobs are hard to find in many rural areas, but in Idaho job-seekers can get help through a very successful rural employment project led by extension employees at the University of Idaho. Initiated in 1971, the program still brings many employers and employees together.

- With help from extension specialists at the University of Wisconsin, a potato processing plant in a depressed area of the state has economically revived an area considered hopeless a few years ago.

- In Colorado senior citizens are teaching children ages seven to 11 through a unique program called Mountain Explo. The camp is a learning experience for the children that involves county, state and federal participation with help from 4-H specialists at Colorado State University.

In the Beginning*

The roots of extension service in the United States can be traced to the ideas of such early-day Americans as George Washington, Thomas Jefferson, Daniel Webster and Benjamin Franklin. Historical records show that Washington experimented with different crops and farming methods at his estate in Mount Vernon, Va. Thomas Jefferson was the foremost agriculturist of his day. Daniel Webster designed and built a new plow to use on his farm. Benjamin Franklin performed his own experiments and disseminated the latest information available in the field of “scientific” agriculture.

Prominent men who were also wealthy farmers carried out more experiments of the day. Only “men of means” could afford the risks and spare the time to import and breed improved crops or livestock, or to design and supervise crop and implement trials on their land. The average subsisting farmer was too busy struggling to provide food, shelter and clothing for his family.

An early form of extension work started in 1607 soon after the first settlers

*Except where noted otherwise, the references used to verify the historical events presented in this chapter include: James Carey, *Kansas State University: A Quest for Identity*, The Regents Press of Kansas, Lawrence, 1977; Roy Scott, *The Reluctant Farmer: The Rise of Agricultural Extension to 1914*, University of Illinois Press, Urbana, 1970; E.D. Eddy, Jr., *Colleges of Our Land and Time*, Harper Brothers, New York, 1956; and A. C. True, *A History of Agricultural Extension Work in the United States*, United States Department of Agriculture, Washington, D.C., Miscellaneous Publication No. 15, October 1928.

landed in Jamestown, now Virginia. According to a popular folk tale, Squanto, an Indian friend of early-day settlers, was the first extension agent because he demonstrated to the pilgrims how to plant a small fish in each hill of corn for a better crop. Agricultural and homemaking information, good or bad, was passed along by demonstration from father to son, mother to daughter, neighbor to neighbor and county to county. Additional information was learned through observation, trial and error, and exchange of experiences.

The American Philosophical Society, founded in 1743, devoted some attention to agricultural topics. But the real concept of extension service might have developed in 1785 when Benjamin Franklin organized the Philadelphia Society for Promoting Agriculture. A South Carolina Society for Promoting and Improving Agriculture was initiated the same year. Other societies were formed across the United States to acquaint members with advancements in agriculture. In addition to providing fellowship and the exchange of information and ideas, these societies spread agricultural news through their publications, lectures and newspaper and farm magazine articles. The Massachusetts Society for Promoting Agriculture, organized in 1792, sent 1,000 letters in 1812 to the state's town clerks for reading at the town meeting. This society also recommended "that the members in different parts of the state would meet at stated times in places convenient to themselves and invite the aid of others who are desirous of forwarding improvements in agriculture." Society members, however, were not bonafide farmers but usually wealthy landowners, professional men and merchants.

The Idea Spreads

The early agricultural societies, which generally developed along community and county lines, soon merged into state societies. These state organizations sponsored fairs for the exhibition of tools, machinery and livestock and for the sale or exchange of seeds and livestock. While community and county fairs were already commonplace for socialization, entertainment and handicraft display, these agricultural fairs proved to be very educational. Elkanah Watson is credited with establishing one of the first agricultural fairs in 1810 at Pittsfield, Mass.

Agricultural societies were eventually organized in every state. As many as 1,330 functioned in the late 1860s. From this movement grew state boards of agriculture. New York established the first such board in 1819. The Ohio legislature formed a state board of agriculture in 1846, and by 1854 the board's officers were conducting three-month courses at Oberlin College on the sciences and their application in agriculture. Maryland created in 1848 the post of a state agricultural chemist who gave public lectures on the latest scientific developments in agriculture. In time most state boards of agriculture assumed fewer education-related activities and performed more regulatory functions. These boards, however, either sponsored or managed state fairs which were extremely popular and valuable learning experiences.

In 1843 the New York legislature authorized the State Agricultural Society to employ "a practical and scientific farmer to give public lectures throughout the state upon practical and scientific knowledge." Wasting no time, the society organized and conducted itinerant lectures in the same year. The idea was well-received and quite successful in spreading timely information.

Farmers' Institutes

Teachers' institutes designed to upgrade classroom teachers' skills were inaugurated in the early 1850s in Massachusetts. They served teachers so well that the Massachusetts State Board of Agriculture initiated farmers' institutes. On Jan. 15, 1863, after nearly 10 years of deliberation, the board voted to call annual meetings with discussions and lectures by top agriculturists in the country. The first institute was conducted Dec. 8 through 11, 1863, at Springfield, Mass. This winter meeting was repeated and became so successful that summer field meetings were initiated Aug. 4, 1869, at the Massachusetts Agricultural College.

Under the leadership of John Porter, the Sheffield Scientific School at Yale University hosted a series of lectures on the campus at New Haven, Conn., in February 1860. Many farmers attended this combination school-convention-institute-meeting. The Civil War interrupted plans for subsequent events at New Haven, but they resumed in 1867.

At the same time and halfway across the country, another approach designed to reach more farmers was initiated in Kansas. In June 1868 the Board of Regents of Kansas State Agricultural College directed that "a system of lecturing on agricultural subjects at the college and in the populous settlements of the several counties of the State should be continued, so that the benefits of farming according to correct agricultural principles may be disseminated throughout the State."

At least two off-campus institutes were conducted by the college president and other professors in November 1868. These institutes might have been the first to be held off a college campus and without the sponsorship of a state board of agriculture. The Illinois Industrial University sponsored an on-campus institute in 1869 and three off-campus institutes in 1870. Iowa State Agricultural College conducted four institutes at different locations across the state during the winter of 1870-71.

The farmers' institute movement rapidly spread across the country and was readily adopted by the newly organized land-grant colleges.* Funds were meager, however, and came from many sources. For example, the local agricultural society would frequently make requests to the state's land-grant college or board of agriculture for speakers. The local society would also set the meeting date, arrange for and meet expenses of local facilities, select two

*Land-grant colleges are discussed further in this chapter under the subhead: "Land-Grant Colleges: A New Concept of Higher Education for the Common Man."

or three outstanding local farmers to be on the program, and arrange food and lodging for guest speakers. The college or state board of agriculture would provide salaries and travel costs for the lecturers and supplies and equipment for demonstrations. The annual budget for expenses other than salaries at the Kansas State Agricultural College varied from \$150 in 1868 to \$500 in 1899.

Railroad companies, which were deeply interested in expanding agricultural production, often provided free rail passage for institute lecturers. Some companies even provided special three- and four-car trains when a lengthy series of institutes was conducted in towns along their lines.

Michigan State College offered 70 institutes, one in each county in the state, in 1895 and 1896. The institute movement continued to gather momentum and strength over the years. It reached its zenith between 1910 and 1914.

In the year 1899 institutes were reported in 47 states with a total attendance of over 500,000 farmers. In 16 states the institutes were connected with the State Department of Agriculture. In 19 southern and western states they were directly under the auspices of the agricultural colleges or experiment stations. Women were encouraged to take part and the number of women lecturers gradually increased . . . The increased interest and participation of women and boys and girls . . . built up attendance and spread influence. At the close of this period, over 8,000 institutes were held annually with more than 3,000,000 people in attendance.¹

Complementary Activities

Other popular movements and activities took place during the growth period of the farmers' institutes. Agricultural fairs, displays and exhibitions steadily gained popularity and numbers. County and state fairs became the show place of American agriculture, including livestock, crops, tools and machinery. Women exhibited cooking, sewing and other products made in the home. Later, youth made a great contribution to the fair movement.

The press helped to pass along the latest but not always the most correct information. Because the population of the United States was still predominantly rural in the early 1800s, editors and publishers were keenly interested in signing farmers as subscribers to their publications.

Elliott's Essays Upon Field Husbandry in New England, first published in 1748, and *The American Farmer*, started in 1819, were the first agriculture-related publications of the time. Other such newspapers and magazines also played a big role in the dissemination of information to the farmer, the homemaker and agribusiness firms. Publication and subscription numbers probably peaked between 1900 and 1920.

Agriculture as a Science

One of the real difficulties confronted by early-day extension efforts was the shortage of reliable, factual and research-tested data that could be used for making sound, practical and feasible recommendations for farmers and, later,

homemakers. Complicating the problem was the great diversity in climate, soils and crops that existed across the country. Personnel was another problem; agriculture and home economics graduates were unknown until the 1860s.

Agriculture is a relatively new science. It developed slowly in European and British institutions and even more slowly in the United States. Justus Liebig, a German chemist who lived from 1803 to 1873, is generally recognized as the first agricultural scientist.

Other early-day teachers of agriculture were chemists, zoologists, botanists, geologists, animal physiologists and veterinarians. In early schools agriculture-related subjects were taught as independent disciplinary offerings, not as an integrated curriculum or course of study.

Some agricultural historians trace the first formal instruction in agriculture in the United States to Rensselaer Institute, established in 1824 at Troy, N.Y. Rensselaer Institute offered training in science and its applications to the "common purposes of life" so that its students could, in turn, instruct farmers and others by lecturing in towns and school districts.

Land-Grant Colleges: A New Concept of Higher Education for the Common Man

Jonathan Turner, of Illinois, is credited as the father of the land-grant college movement. According to some historians, he was a vigorous proponent during the late 1840s and 1850s for an institution that offered agriculture and the practical arts to the "common man." One of the first attempts to obtain federal funding was made in 1848 by John Skinner, an agricultural writer and editor, who asked Congress for subsidies to state colleges of agriculture and mechanic arts.

By the late 1850s several state legislatures had established agricultural colleges, but the first federal legislation authorizing funds for such colleges was proposed in December 1857 by Rep. Justin Morrill, of Vermont. His bill was passed by the House and Senate but was vetoed by President Buchanan on Feb. 24, 1859. Morrill, who later became a senator, did not give up. His second attempt was successful when President Lincoln signed the bill commonly known as the Morrill Land-Grant Act on July 2, 1862.

The Morrill Land-Grant Act, in brief, granted federal land to each state on the basis of 30,000 acres for each member of Congress from that state. Proceeds from the land were to be used as an endowment for the establishment of at least one college in each state "where the leading object shall be, without excluding other scientific or classical studies, to teach such branches of learning as are related to agriculture and the mechanic arts."

Several states claim to have the first land-grant college—Michigan, because it had an agricultural school operating in 1862 when the act was passed; Iowa, because its legislature was the first to accept the provisions of the act in September 1862; and Kansas, because it had the first college to become operational under provisions of the act. (That first college was an

existing one, Bluemont Central College, which was gifted to the state in July 1863. It became Kansas State Agricultural College and offered classes later that same year.)

This new concept of education in agriculture and the mechanic arts gained acceptance slowly and suffered tremendous growing pains. Income from the land grants was insufficient to provide adequate buildings and equipment. Qualified faculty members were extremely limited in numbers. Relevant textbooks were virtually nonexistent, and students did not rush to enroll in the colleges as expected. As a matter of fact, few young men, especially in the Midwest, possessed the minimum entry qualifications. From the outset, most of the institutions failed miserably to attract students in agriculture. At the University of Wisconsin, for example, only one student had completed the four-year course by 1884. North Carolina counted 17 students in its agricultural course in 1887.

Kansas State Agricultural College was more fortunate. It had 15 graduates by the end of its first decade in 1873, but enrollment during this period never exceeded 125. Approximately half the students were women.

Despite early problems, the new land-grant system of higher education made a significant contribution—it opened advanced learning to the common citizen.

Research and the Land-Grant Colleges

Textbooks and instructional materials on agricultural subjects were extremely limited in the first decades of the land-grant colleges. This was partly because funds were scarce but largely because the research base was virtually nonexistent. To supplement meager library resources, instructors prepared notes based on their needs and limited experience. Perhaps this was a blessing in disguise because it forced instructors to take their students to the fields and barns—the best teaching laboratories. It also forced them to initiate studies and research projects within their own resources to generate materials that could be used in the classroom.

The situation was described by Eddy as follows:

As the subject matter became more formalized, the faculty found many questions without answers. The professor's own dilemma was compounded by the number of requests from farmers who wanted additional answers to complex questions. Each answer raised more questions until it was evident how little everyone, including both professor and intelligent farmer, really knew.²

It became obvious to professors, farm leaders, college presidents and legislators that “experiment” stations, partly supported by federal funds, were the answer. Such stations had operated successfully in Europe for nearly half a century, such as the ones established in 1843 at Rothamstead, England, and in 1851 at Saxony, a former state that is now part of East Germany.

The first experiment station in the United States was established in 1875 at Wesleyan University, Conn., with state and private funds. Wilbur Atwater,

who had visited stations in Europe in the early 1870s, was the moving force behind the project and the station's first director. California and North Carolina were operating similar experiment stations by 1877. Other states quickly established their own.

The research activities at these experiment stations prompted Congress to consider a number of bills that would organize a series of experiment stations across the nation. In 1887 Rep. William Henry Hatch, of Missouri, chairman of the House Committee on Agriculture, introduced a bill to institute an agricultural experiment station in each of the colleges formed under the Morrill Land-Grant Act of 1862 "in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Sen. J. Z. George of Mississippi also sponsored the bill, but Hatch's name has been attached to the legislation in recognition of his leadership and influence.

A provision of the Hatch Act required research results to be disseminated in the form of periodic and annual reports and occasional bulletins to each newspaper in the state and to farmers who might request them. These experiment station results and publications were used by agricultural college professors in their classes as well as during the farmers' institutes.

By passing the Hatch Act, Congress recognized the contribution land-grant colleges made in their first 25 years of existence and set the trend for future cooperation and coordination between the federal government and land-grant colleges. This cooperation became apparent as the experiment station network rapidly grew under the cordial and supportive supervision of the United States Department of Agriculture (USDA), which was also responsible for reporting the experiment stations' activities.

As organized and funded research became an explicit college responsibility, faculty members were appointed to perform both teaching and research duties. This became a common practice that is continued today. Through the years research changed the colleges' instructional methods and extension programs for the better. Research costs have been returned hundreds of times over in terms of the positive effects experiment stations have had on agriculture.

The Second Morrill Act of 1890

Despite the many benefits of the land-grant colleges, they were plagued with financial trouble from their inception. The original endowments were inadequate. Some funds were squandered, others netted poor returns. State legislatures generally did not provide enough support because many legislators considered the institutions as "national" colleges, thus a federal not a state responsibility.

Morrill recognized the financial difficulties of the fledgling institutions

and struggled to provide them with more federal assistance. He introduced in 1872 a bill that would provide additional endowment. This bill was defeated early in 1873. Morrill persisted. In April 1890 he introduced another bill that was passed by Congress and signed by President Harrison in August 1890 as the Second Morrill Act of 1890. The act made available operating funds to the land-grant colleges. In return the colleges were subjected to new restrictions, including a mandatory annual report.

Under the law those states operating colleges for only whites had to provide separate but equal facilities for blacks. Chapter 13 details the development of these 1890 institutions that are commonly called black land-grant colleges.

With the passage of the Second Morrill Act of 1890, the states finally realized that the future of the land-grant colleges was in their hands. As a result, they increased appropriations to the colleges and took their matters more seriously. In the 1890s and early 1900s, the land-grant colleges finally came of age as viable and recognizable forces in agriculture and higher education in the United States and, ultimately, throughout the world.

A United Front

Long before the Morrill Act of 1890 was passed, supporters of the land-grant colleges recognized that a united front was necessary if their ideas and needs were to be publicized and recognized. As early as 1871, efforts were made to form an organization of land-grant colleges. Similar attempts in 1872 and 1877 failed, but persistence eventually paid off.

College representatives met at Washington, D.C., in 1882 and again in 1883 to discuss policies and common problems facing the colleges. The concept of an association was discussed at both of these meetings, but no action was taken until July 1885. In that month 78 college administrators congregated in Washington for a meeting sponsored by the U.S. Commissioner of Agriculture. Through their previous support of and their lobbying for Hatch's bill to institute an agricultural experiment station at each of the land-grant colleges, those administrators recognized that the colleges would benefit from a cooperative and coordinated effort. Thus, the Association of American Agricultural Colleges and Experiment Stations came into being informally in July 1885 and formally in October 1887. This organization, now called the Association of State Universities and Land-Grant Colleges (ASULGC), first went to work on the passage of the Second Morrill Act of 1890.

The Origin of an Extension Service

Soon after the Second Morrill Act of 1890, the ASULGC turned its attention to a nationwide "outreach" program, or extension service. Although farmers' institutes, schools and other efforts by the land-grant colleges to disseminate information were reaching more farmers every day, no attempt had been made to coordinate this work on a nationwide basis.

The Organic Act of 1862, which formed the USDA, included the phrase, "to diffuse among the people . . . useful information on subjects connected with agriculture." The Hatch Act contained similar language. Scott notes that the then Commissioner of Agriculture, Frederick Watts, felt "there should be close contact between his department and the agricultural colleges in order that these agencies could better perform their extension functions."³ Watts made no effort to define or explain what he meant by *extension* in his 1871 annual report. It may be, however, the first recorded use of the term in the United States.

Kelley feels the term *university extension* was coined in the 1840s, yet he dates the first university extension course from 1867 when Trinity College, Cambridge University, offered a course to women teachers.⁴

In 1891 Rutgers University, N.J., organized a formal extension department to sponsor off-campus agricultural short courses in seven towns on soil and crops, feeding plants and animal nutrition. Cornell University, which established its pioneer extension division in 1894, is generally acknowledged as the leader in agricultural extension service.

Cornell explained its extension program in 1896 to include local experiments as a means of teaching, expository bulletins, itinerant horticultural school, elementary instruction in nature study in rural schools, and instruction by correspondence and reading courses. . . . It was apparent then that all forms of extension work, including demonstrations on the farm, were a part of the extension program before the turn of the century.⁵

Other states quickly followed the lead set by Cornell and other pioneers in extension.

Work with Rural Women and Youth

Before the turn of the century, many farmers' institutes included topics for rural women but were not designed exclusively for them. Institutes specifically for women originated in 1890 in Minnesota and in 1892 in Wisconsin. As late as 1909, only nine states sponsored separate institutes for women while four sponsored women auxiliaries.

Illinois developed and implemented in 1898 a plan to organize rural women in groups called domestic science clubs. This movement spread slowly but later developed into today's extension homemaker clubs.*

Activities directed at rural youth also began to receive consideration and recognition within as well as outside the institute movement. These took the form of boys' corn or pig clubs and girls' canning, sewing or garden clubs.

Such clubs for boys and girls were often used to get parents involved in new agricultural trends. For example, when Will Otwell, farmer and president of the Macoupin County Farmers' Institute of Illinois, could not get farmers to attend the first county institute in December 1898, he decided to invite the farmers' sons. He advertised around the county that he would supply a few

*These clubs are designated by various names across the country.

kernels of selected seed corn to all boys younger than 18 who wished to grow it. More than 500 boys sent for the seed, grew it during the summer of 1899 and displayed it in the fall. The exhibit's judge said that he had never seen a better display of yellow corn. Although Otwell's program never formed any local groups or required attendance at meetings, it captured farmers' attention and proved how farm boys would respond to a challenge and react to public encouragement and recognition. His program climaxed with a remarkable display of 1,250 corn samples at the 1904 St. Louis fair.

A. B. Graham, of Ohio, and O. J. Kern, of Illinois, are credited with originating the boys' and girls' club idea early in 1902. Graham and Kern, both county superintendents of schools, organized agricultural experiment clubs (Kern's clubs were restricted to boys), used improved corn as the project and worked closely with college of agriculture and experiment station staff. Graham added vegetable and flower garden projects in 1903.

These pioneer clubs had three primary objectives:

- to make classroom instruction more interesting and relevant with the experience and knowledge gained through agricultural projects;
- to encourage parents, through the enthusiasm and receptiveness of their children, to put into practice new scientific information;
- to elevate the status of agriculture in the view of parents and youth.

Graham's and Kern's work was highly successful. Word of their accomplishments spread rapidly across the country, and other public-spirited men and women immediately used their model to organize clubs. Within a few years garden clubs, sewing clubs, pig clubs, corn clubs—clubs of all types—were operating. Until federally sponsored corn growing contests appeared in 1907 in Mississippi, practically all club activity took place in the schools or under teacher supervision.

In 1903 in Texas, the *Farm and Ranch* magazine offered free seed and \$1,000 as prizes for the best crops grown and butter made by young people between the ages of 14 and 20. State farmers' institutes conducted special sessions for youth and encouraged schools and other organizations to initiate clubs for boys and girls. Henry A. Wallace, publisher of *Wallace's Farmer*, distributed superior seed corn to youth in 1904. Select ears from each field were exhibited at the Texas State Farm Institute show.

Wisconsin and Nebraska initiated similar programs in 1905, and J. H. Miller, secretary of the Kansas Farmers' Institute, organized in 1906 corn clubs for boys between the ages of 12 and 18. Membership exceeded 5,000 in the first year. In 1907 wheat, potatoes and gardening clubs were added for boys; gardening, baking, sewing and canning clubs were started for girls. Georgia was the first state to declare a "corn growing champion" in 1906. The Portland Union Stockyards, of Oregon, employed in 1906 a man to work full-time with the state superintendent of schools in spreading the rural school fair idea which became an approach to parent-child involvement and cooperation.⁶

This youth work laid much of the foundation on which later extension

activities and programs were built. In fact, the youth movements of the day made a tremendous impact on parents, sponsors, teachers and agricultural leaders. The real impact, however, came a generation or so later when the “youth of today became the leaders of tomorrow.”

Seaman A. Knapp and the Demonstrations

Too many people were involved in developing the idea of extension service for any one man to claim credit for it. One individual, however, has been recognized by many as having the most influence. He is Seaman A. Knapp—school teacher, progressive farmer, farm paper editor, land developer and, for a while, land-grant college professor and president at Iowa State College.

At the turn of the century, farmers’ institutes, schools, exhibits, fairs, farm magazines and newspapers were the principal means of disseminating information to farmers, homemakers and rural youth. Friends, relatives, neighbors and rural school teachers, as well as machinery and seed salesmen, were primary sources of information when it came time to make a decision on what to plant or how to grow it. County extension agents were unknown. College professors were too few in number to widely circulate information and usually, at that time, they were not trusted. Local farmers often asked, “What do they *really* know about farming?”

In the early 1900s colleges of agriculture and the USDA were promoting “demonstration farms,” usually on government-owned land, to prove to farmers the value of improved agricultural practices. Because of his experiences as a farmer in Iowa and land developer in Louisiana, Knapp felt this was the wrong approach. He believed improved methods should be demonstrated with close technical assistance and guidance on a farmer’s land and with his resources.

• Knapp had the opportunity to prove his theory in the summer of 1902 when he was appointed as a USDA special agent to promote agriculture in the South. At the age of 69, he accepted this broad assignment with energy, enthusiasm and a sense of urgency. The following series of events illustrates what happened.

| <u>Date</u> | <u>Event</u> |
|-------------|---|
| 1902 | Knapp is appointed USDA special agent and develops his farmer-demonstration approach to show improved agricultural practice. |
| 1903 | W. C. Porter agrees to follow Knapp’s instructions on 70 acres of his farm. Businessmen of Terrell, Texas, establish an indemnity fund of \$1,000 to cover any losses. The demonstration is successful. Porter makes \$700. |
| 1904 | Twenty special agents are appointed to conduct demonstration work in Texas and western Louisiana where the cotton boll weevil is severely damaging the cotton crop as it progresses eastward across the cotton belt. |
| 1905 | Preliminary demonstration work spreads to Arkansas, Mississippi and western Tennessee. Knapp moves his field office from Houston, Texas, to Lake Charles, La. |

- 1906 The General Education Board (established by John D. Rockefeller in 1902 and incorporated by Congress in 1903) and USDA sign a Memorandum of Understanding that allows expansion into areas not served by the department. In effect, there are now two branches of the Farmer's Cooperative Demonstration Work. USDA has complete supervision, determines all policies and is solely responsible for appointing agents for both branches.
- 1906 In Smith County, Texas, citizens agree to contribute a portion of an extension agent's salary so they can have their own agent. W. C. Stallings is the first agent appointed with joint funds—a new concept in farm demonstration work.
- 1906 Thomas Campbell becomes the first Negro agent when he is employed at the insistence of the General Education Board. Campbell's headquarters is Tuskegee Institute, the first college to cooperate directly with Knapp's demonstration program. Another black agent, J. B. Pierce, is employed to operate the program at Hampton Institute, Va.
- 1909 USDA and North Carolina Agriculture College jointly employ an agent to supervise boys and girls' club work in the state.
- 1909 Michigan Agricultural College hires three agents to work in the upper portion of the state.
- 1910 A. B. Ross is appointed by USDA office of Farm Management to work with farmers in six Pennsylvania counties.
- 1911 USDA, Cornell College of Agriculture, local businessmen and farmers cooperatively arrange for the support of a county agent in Broome County, N.Y.
- 1911 Alabama becomes the first state to have an agent in every county. Alabama provides \$25,000 to support demonstration work conducted by USDA. Critics begin to accept demonstration work as more effective than farmers' institutes.
- 1911 Knapp dies, but his son, Bradford Knapp, continues his work.
- 1912 USDA reports 100,000 farmer-demonstrator cooperators are active in the southern states.
- 1912 The General Education Board supports its first program in northeast Maine.
- 1912 Julius Rosenwald, of Sears Roebuck and Co., offers to pay \$1,000 of an agent's salary to any county which citizens raise \$2,000 to \$5,000 and agree to maintain the agent for at least two years. In time 110 counties receive assistance under this offer. All but one are in the Midwest.
- 1912 Congress grants \$300,000 to USDA to investigate and support farm demonstration work after such efforts have been underway in the South for nearly nine years. Some colleges of agriculture resent this action because "it infringed on their area of responsibility." Nevertheless, Cornell University begins to use some of its own funds to financially support county agents.
- 1912 USDA, University of Missouri, Missouri State Department of Agriculture and local authorities develop a plan to share the cost of implementing a statewide county agent system in Missouri.
- 1912-1914 Most states, including farm organizations, actively expand their county agent systems with funds from various sources.
- 1914 Congress passes the Smith-Lever Act which authorizes federal funds for support of statewide extension systems.

The Smith-Lever Act

Since the turn of the century, pressure had been slowly building for a nationwide extension system that would have considerable federal support and participation. The ASULGC strongly supported such a move. President Theodore Roosevelt appointed in 1908 a Commission on Country Life to

recommend legislation that would enhance the well-being of farmers and others living in rural areas. In 1909 the commission recommended that a nationwide system of extension service be established. Eddy notes that between 1909 and the end of 1913 at least 32 bills were introduced into the House or Senate to provide support of one kind or another for such a program.

Rep. A. Frank Lever, of South Carolina, introduced in 1911 a bill that called for a nationwide extension. USDA and the colleges, working within and through the extension committee of the ASULGC, modified the bill. Sen. Hoke Smith, of Georgia, introduced the modified version in the Senate on July 16, 1912. After nearly two years of criticism, debate, discussion and revision, the bill was passed. On May 8, 1914, the bill was signed into law as the Smith-Lever Act.

Brevity and simplicity characterize the Smith-Lever Act that was to "aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage application of the same." The wording of the purpose of this act and the Hatch Act shows strong similarities. In fact, the Smith-Lever Act was patterned after the Hatch Act (1887) and the Morrill Act (1862). The Smith-Lever Act, however, created a third link between the federal government, represented by USDA, and the land-grant colleges. Whereas the two institutions were formerly joined only in research and teaching, the Smith-Lever Act bonded their efforts together in extension service. Numerous amendments have been made over the past 70 years to the Smith-Lever Act, but its basic intent has not changed.

Definitions of Extension Education

Extension education means different things to different people. Extension, in simplest terms, means nothing more than "to extend." Webster defines it as "a branch of a university for students who cannot attend the university proper."

The Petersons contend that all university tasks, except daytime teaching and scholarly research, must be considered as the total university extension function.⁷ In this context extension service is considered as one element or branch of the much broader field of adult education which Houle defines as

the process by which men and women (alone, in groups, or in institutional settings) seek to improve themselves or their society by increasing their skill, their knowledge, or their sensitiveness. Any process by which individuals, groups or institutions try to help men and women improve in these ways.⁸

Kelsey and Hearne provide the most complete definition:

Extension work is an out-of-school system of education in which adults and young people learn by doing. It is a partnership between the government, the land-grant colleges, and the people, which provides service and education designed to meet the needs of the people. Its fundamental objective is the development of people.⁹

A working definition draws on these authorities. Extension education can

be defined as the process of extending useful and practical information through a broad range of methods to persons in out-of-school situations.

Theoretically, to anyone receiving a service, any increase in knowledge or skill level is considered incidental. Service is doing-things for people. In reality, however, it is difficult to draw a clear distinction between education and service. Sometimes a service has to be performed before education can happen. One of extension service's basic principles is that "Extension service does things to people, not for them." Or, more simply put: "Extension service helps people help themselves."

Notes

¹Kelsey, L. D., and C. C. Hearne. *Cooperative Extension Work*, 2nd ed. Ithaca, N.Y.: Cornell University Press, 1955.

²Eddy, E. D., Jr. *College for Our Land and Time*. New York: Harper Brothers, 1957.

³Scott, Roy. *The Reluctant Farmer: The Rise of Agricultural Extension to 1914*. Urbana, Ill.: University of Illinois Press, 1970.

⁴Kelley, Thomas. *A History of Adult Education in Great Britain*. Liverpool, England: Liverpool University Press, 1962.

⁵Eddy, E. D., Jr. *College for Our Land and Time*. New York: Harper Brothers, 1957.

⁶Reck, Franklin M. *The 4-H Story—A History of 4-H Club Work*. Ames, Iowa: Iowa State University Press, 1951. Note: Two of the most thorough books on the history of 4-H are Reck's book and another by Thomas and Marilyn Wessel, *4-H: An American Ideal*, published by the National 4-H Council, Chevy Chase, Maryland, 1982.

⁷Petersen, Renee and William Petersen. *University Adult Education*. New York: Harper Brothers, 1960.

⁸Houle, Cyril. *The Design of Education*, 2nd ed. San Francisco: Jossey-Boss Publishers, 1974.

⁹Kelsey, L. D., and C. C. Hearne. *Cooperative Extension Work*, 2nd ed. Ithaca, N.Y.: Cornell University Press, 1955.

2



Cooperative Extension Service's Philosophical Base

Before the philosophy of extension service can be discussed, a need for the extension service must be demonstrated. Why is the Cooperative Extension Service necessary in the 1980s?

The United States was basically an agrarian society until the end of the 19th century. During that time the land-grant universities formed extension services as arms of their institutions and began grassroots, off-campus educational activities.

Kelsey and Hearne noted that

Extension work is largely the result of . . . two great forces. First, American agriculture; second, American education . . . The need for scientific knowledge in agriculture in the nineteenth century was emphasized by:

- The closing of the land frontier;
- Distance of producing areas from markets;
- Crop specialization;
- Growing credit needs;
- Changing cultural problems;
- Need for abundant food at reasonable cost.¹

The need for scientific knowledge in agriculture that promoted extension service could not be readily met at the turn of the century because land-grant colleges were in their infancy and valid research information was limited. That left rural families to fend for themselves. They had to fight the weather, rising credit demands and railroad lines, which sometimes set rail freight rates too high to allow profits on agricultural goods shipped by rail.

At that time many farmers felt a need for minimal, governmental regula-

tions and laws. Most of them aggressively sought ways to improve their lot. The Cooperative Extension Service, as a governmental agency, recognized those needs and rights of rural Americans.

By 1945, however, six million farms existed in the United States. Only 9.4 percent of the population lived on farms in 1959 and only 5 percent in 1969. By 1980 food and fiber for 232 million people in the United States and agricultural exports worth \$40 billion were provided by 1.66 million farms.²

Today's farmers are still coping with problems, but they are new ones—specialization, declining farm numbers and changing cultural patterns. The need for continual development and training of rural leaders who can help farmers confront these modern problems is still strong. Again, extension service is filling that role as a promoter of agricultural improvement.

In 1976 Edwin L. Kirby, administrator of Extension Service, USDA,* said:

Recognizing our charge and educational role, the Extension Service nationally has developed four priority missions which delineate extension's contribution. These are included in the Extension Service five-year plan of work:

1. Provide assistance to families, youth and community leaders in the development of rural America to make it a better place in which to work and live.
2. Provide assistance to adults and youth through programs in agriculture and home economics to increase efficiency in production, marketing and utilization of food and fiber (including forest products) to meet both domestic and worldwide needs.
3. Work with producers and their families to strengthen independent family-owned farming operations to assure a strong competitive agriculture based on the independent farm.
4. Assist both the private and public sectors with protection and management of rural America's natural resources for use by present and future generations.³

Each farmer in the United States produced enough food in 1982 to feed 78 persons. Today, approximately 17 percent of a U.S. consumer's income is spent on food. That figure is up only 2 percent from the early 1970s. American consumers still spend less on food than their counterparts anywhere in the world, thanks to agricultural research and an effective extension service.

In the last decade extension service greatly extended its scope of responsibilities beyond agriculture. It mounted an Expanded Food and Nutrition Education Program (EFNEP); expanded its 4-H and youth programs, especially in urban areas; emphasized consumer education, improved family relations and community improvement; stressed small farmer programs; increased natural resource conservation activities; used the mass media to communicate information to urban dwellers; and worked closely with agencies and organizations involved in developing and enhancing human resources.

*Extension Service, USDA, is the current title of the extension arm of the USDA. It has also been called: Federal Extension Service and Science and Education Administration-Extension (SEA-Extension). Extension Service, USDA, is the title used throughout this book.

Extension Service's Philosophical Terminology

Why does extension service work so hard to help people help themselves? Every institution has its reasons—or principles, philosophy and traditions—underlying its actions. Extension service, being no different, has put its own educational terminology into use, prepared lists of principles that have been revised over the past 50 years and developed a philosophy.

To provide a clear and mutual understanding of extension service's philosophy, the definitions of three basic terms—concept, principle and philosophy—need to be explored as they relate to extension service.

Concept: An idea or thought, especially a generalized idea of a class of objects; an abstract notion.

Concepts are building blocks. Humans learn them one at a time but assemble them to form a pattern of behavior. Concepts condition mental responses. When well-learned and deeply ingrained, they become “habits.” When this state is achieved, little mental effort is needed for an action or reaction.

Because professional extension workers must learn how to deal with new situations, they need a solid background of concepts, skills, knowledge and values that serves as a framework to guide their actions. These concepts form the basis of the principles underlying extension education.

Principle: A fundamental truth, law, doctrine or motivating force upon which others are based; an essential element, constituent or quality, especially one that produces a specific effect.

Extension service recognizes several fundamental truths, such as the dignity and worth of the individual, freedom of choice and the right to participate in community activities. In addition, federal laws mandate that all educational programs and materials be made available without discrimination on the basis of race, color, national origin, sex or handicap.

Philosophy: The general principles or laws of a field of knowledge or activity.

Extension service is not a discipline or a separate field of knowledge, but it is part of the broader field of education. A working definition of philosophy could be simply stated as “a body of principles underlying a human activity.”

Some Principles Underlying Extension Activity.

Several lists of principles of extension service have been developed over the years. One of the first was prepared in the 1950s by M. L. Wilson, administrator of Extension Service, USDA. Wilson outlined ten “principles of education (that) may . . . in a general way . . . be embodied in extension programs: participation, democratic use of applied service, cooperation, grassroots organization, variation of methods according to needs of groups, use of specialists, survey and trial programs and recognition of interests, needs, cultural changes and scientific changes.”⁴

DiFranco has compiled the most thorough and complete list of extension

principles. He calls them a “composite list of principles” because he extracted and categorized them from dozens of sources. He was writing in the broader context of rural adult education when he wrote that

emphasis on the extension process should

- be based on conditions that exist (local, regional and national);
- involve people in actions that promote their welfare;
- develop programs gradually;
- aim basically at people’s interests and needs;
- use democratic methods;
- keep programs flexible;
- work through understanding of the culture;
- use local leaders;
- use existing agencies;
- use trained specialists;
- work with all members of the family;
- make programs as broad as needs of rural people;
- evaluate continuously;
- work with all classes of the society;
- keep in line with national policies;
- use the community approach;
- help people recognize their needs.⁵

Many extension service principles are embodied in the “Extension Workers Creed” that was developed in 1960 by Epsilon Sigma Phi, the professional honorary society for extension workers. This creed, however, elaborates on the ideals of the profession itself.

EXTENSION WORKERS CREED

I BELIEVE in people and their hopes, their aspirations, and their faith; in their right to make their own plans and arrive at their own decisions; in their ability and power to enlarge their lives and plan for the happiness of those they love.

I BELIEVE that education, of which extension work is an essential part, is basic in stimulating individual initiative, self-determination, and leadership, that these are the keys to democracy and that people, when given facts they understand, will act not only in their self-interest but also in the interest of society.

I BELIEVE that education is a lifelong process and the greatest university is the home; that my success as a teacher is proportional to those qualities of mind and spirit that give me welcome entrance to the homes of the families I serve.

I BELIEVE in intellectual freedom to search for the present, the truth without bias and with courteous tolerance toward the views of others.

I BELIEVE that the Extension Service is a link between the people and the ever-changing discoveries in the laboratories.

I BELIEVE in the public institutions of which I am a part.

I BELIEVE in my own work and in the opportunity I have to make my life useful to mankind.

Because I BELIEVE these things, I am an extension worker.

Philosophy of Extension Service

One of the clearest statements of extension service’s philosophy was written by J. Neil Raudabaugh, of Extension Service, USDA.

A PHILOSOPHY OF COOPERATIVE EXTENSION EDUCATION

The philosophy of the Cooperative Extension Service assumed from the beginning that people must be reached where they are—that is, at their present background of education and level of interest and understanding. It also assumed that the aims and objectives are not to be fixed and unchangeable. They must be modified on the basis of individual and social needs. "It is the function of the Extension Service to teach people to determine their own needs and the solution of their own problems; to help them to acquire knowledge and to inspire them to action." The basic philosophy of extension education is to teach people "how" to think, not "what" to think.

Another basic principle is that the extension worker teaches people to help themselves, not do things for people. The worker can best serve people by helping them to recognize their own potentialities in learning, to desire, to grow, to reach out in order to improve their present status. The extension worker who accomplishes this for his people teaches "people" not "subject matter."

The success of the extension worker depends upon his sympathy and understanding of people and problems of rural and urban life. It also depends upon his knowledge of how to apply the principles of extension education and psychology to the situations in which he works. His success also depends upon sound technical training and a broad background of education and experience.

People from pioneer days have generously shared what they have with others. This habit of people has been developed further in the leader who shares his information and provides opportunity for others to obtain new practices in agriculture and homemaking. This has meant, too, that the extension worker must help people to work together in groups.

Therefore, extension education is not only teaching people individual practices (how to use the square, the saw and the hammer), but also the interdependence of practices in actually building something—that something is a better, fuller and a more satisfying life. Extension education is the developing of comprehensive plans, including the home, family and community; and then seeing that the plan is carried into action. Extension's specific job is furnishing the inspiration, supplying technical helps, and counseling to see that the people as individuals, families, groups and communities work together as units in blueprinting their own problems, charting their own courses, and that they launch forth to achieve their objectives."

Notes

¹Kelsey, L. D., and C. C. Hearne. *Cooperative Extension Work*, 3rd ed. Ithaca, N.Y.: Cornell University Press, 1963.

²*The Cooperative Extension Service: A Nationwide Knowledge System for Today's Problems*. Colorado State University, Cooperative Extension Service Bulletin 35180. Fort Collins, Colo.: August 1981.

³Speech titled "Extension Serves Both Producers and Consumers," by Edwin L. Kirby, Administrator, Extension Service, USDA, at New Hampshire Annual Extension Conference, June 1, 1976.

⁴Wilson, M. L. "Educational Principles," *The Spirit and Philosophy of Extension Work*, R. K. Bliss, ed. Epsilon Sigma Phi and the Graduate School, USDA, 1952.

⁵DiFranco, Joseph. *A Collection of Principles and Guides*. Cornell University, Comparative Extension Education Publication No. 4. Ithaca, N.Y.: June 1958.





A Profile of the Cooperative Extension Service

The Cooperative Extension Service* is a unique partnership between the federal government, educational institutions, local governments and the people. No other educational system operates quite like it. Its strength flows from the involvement at all levels and the mutual respect and support each party has for the other.

A concise profile developed by Sanders¹ gives the following picture of the Cooperative Extension Service:

- an agency of government created by law with permissive intent;
- truly cooperative in nature in terms of financing and program development;
- an agency with programs free and available to any interested person without discrimination on the basis of race, color, sex, creed, national origin or handicap;
- educational in nature and conducted informally, using a wide variety of teaching methods;
- voluntary on the part of individual participants;
- restricted to agriculture, home economics and related subjects in the broadest and most general of definitions;
- dedicated to working with the family as a unit;
- an equal partner with the research and teaching units in the land-grant university system;
- dependent upon research for its information base;
- dependent upon volunteer leaders who help plan, implement and evaluate its educational program.

*Not all states use Cooperative Extension Service as their official title. Minnesota, for example, uses the official designation of Agricultural Extension Service. USDA uses the official designation of Extension Service.

A Cooperative Venture

The word “cooperative” refers to the legal, financial and educational aspects of the Cooperative Extension Service that are shared by federal, state and county governments.

The Smith-Lever Act, passed by Congress in 1914, explains these three components of extension service and each government’s responsibilities and duties. The act was drastically amended in 1953 and again in 1962* to consolidate several related acts of Congress under one law and to expand the scope of extension service.

As laws go, the Smith-Lever Act is a very concise document. The complete text of the act as amended in 1962 appears in Appendix A. Congress made other minor amendments to the act in 1972, 1976 and 1977. Appendix B traces the history of extension legislation in an annotated form.

Legal Base for a Unified Extension Service in the United States

There are nine sections to the Smith-Lever Act as amended in 1962. **Section I** of the act states the purpose of the Cooperative Extension Service as

... to aid in diffusing among the people of the United States useful and practical information on subjects related to agriculture and home economics, and to encourage the application of the same . . . in connection with the (land-grant) colleges or universities in each State, Territory or possession . . . ; agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture

The key words are *diffusing, useful and practical information and in cooperation with*. These words clearly portray what Congress wanted done and what the institutions were to do, and they direct the USDA to guide and coordinate the work.

Section 2 spells out how the work was to be conducted and with whom.

... Extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics and subjects relating thereto to persons not attending or resident in said colleges . . . ; this work shall . . . be mutually agreed upon

In addition to highlighting the *how* and *with whom*, the act makes it known that providing formal course work on college campuses financed by Smith-Lever funds is prohibited. The phrase, “subjects relating thereto,” has always been liberally interpreted.

Youth work is not mentioned specifically, but from the earliest days of extension service, youth activities were initiated and widely supported. The “mutually agreed upon” parties are the USDA secretary and college presidents. No guidelines for the agreement were suggested. Soon after the act was passed, however, a separate “Memorandum of Understanding,” outlin-

*The most recent and thorough analysis of extension service’s legislation and funding has been prepared by Ralph E. Groening in an unpublished USDA document titled *Funding of Extension Programs—1914-1977*, Extension Service, USDA, Washington, D.C., April 1979.

ing responsibilities of the two parties, was prepared and signed. Several different ones have been used at various times from 1914 to 1980. A copy of the current memorandum appears in Appendix C.

The main points of the memorandum are as follows.

College agrees to:

1. organize and maintain a definite administrative division for the management and conduct of the work;
2. administer all funds through such division;
3. cooperate with the USDA in all extension work which the department is authorized to conduct in the state.

USDA agrees to:

1. establish and maintain a central office for the general supervision of all extension work;
2. conduct its extension work in the state in cooperation with the college.

College and USDA mutually agree to:

1. plan work under the joint supervision of the state director and the responsible officer for the USDA;
2. appoint joint representatives;
3. have plans made and executed by the state, subject to the approval of the secretary of agriculture.

Section 3 addresses the financial provisions of the act and fund allocations as follows.

- an annual appropriation will be made with Extension Service, USDA, and each state extension service division entitled to a share;
- states must provide equivalent or matching funds, except for certain specially designated program needs;
- 4 percent of the annual funds will be allocated to Extension Service, USDA;
- of the remainder: 20 percent will be divided equally among the states, territories and possessions; 40 percent will be divided among the states, territories and possessions according to the ratio of each state's rural population to U.S. rural population. The balance of the 40 percent will be paid in the proportion of each state's farm population to U.S. farm population.
- Congress shall make additional amounts available to Extension Service, USDA, for coordinating extension work of USDA and the states, territories and possessions.

The first federal appropriation made \$10,000 available to each state for fiscal year 1915. Most states were already spending more than that for extension work, so matching funds was and still is no serious problem. After 1915 federal grants increased almost every year until 1978, as Table 1 shows.

For fiscal year 1982 appropriations included \$315.702 million from federal sources, \$368.846 million from state (which is considerably greater than the 50 percent matching requirement), \$157.671 million from county and \$24.471 million from non-tax funds. Together, all money appropriated for extension service and its related programs totalled \$866.690 million. This may seem like a large sum, but when broken down it equals only \$3.75 for each man, woman and child in the United States.

Section 4 instructs the responsible college representative, such as the dean or director of the extension service division, to submit an annual plan of work.

When the USDA secretary approves it, the state's share of appropriated funds is released.

Section 5 places restrictions on the use of appropriated federal money and instructs the states to replace misused funds. In case of misuse, no further funds will be made available until such money is replaced. Several funds cannot be used for the purchase, erection, preservation or repair of any building; the purchase or rental of land; or in regular college course work, teaching or lecturing. An annual report of receipts and expenditures is required under this section.

If a state is not entitled to its share of appropriations, Section 6 directs the USDA secretary to report the facts and reasons why to the president. Furthermore, the funds will be kept separate in the U.S. Treasury until a state's appeal for fund allocation is upheld.

Section 7, which required an annual report to Congress by the USDA secretary, was repealed in the 1962 revision.

A new **Section 8** was added in the 1962 revision and the old Section 8, which authorized the secretary to make such rules and regulations necessary to carry out the act, is now **Section 9**. Section 8 instructs extension service to carry out special programs for small, unproductive farms and disadvantaged, limited-resource farm families.

State Legislation for Extension Service

Every state legislature has adopted its own "extension law." The County Extension Council Law for Kansas, adopted in 1952 and amended in 1972, appears in Appendix D as an example. State laws are all similar in that they

- define the extension function, scope, responsibility and limitations;
- authorize the land-grant university to receive and disburse federal funds specifically for extension activities;
- authorize the state extension service to cooperate with the USDA;
- define county extension councils and how and when its members are elected or appointed and the length of their terms of office;
- outline how state and county funds shall be raised and set limits on local funding;
- outline the administrative structure of the county council and the responsibilities of the officers and how business affairs are to be conducted;
- specify how financial records are to be maintained and reported;
- require the preparation of annual programs and reports of work.

For the most part, both federal and state extension laws are more permissive than directive. For example, the Missouri law says the University of Missouri "may formulate an extension program in the counties of the state

...²

Financial Support

Federal, state and county funding of the Cooperative Extension Service is outlined in Table 1. On a national average federal and state funds equal roughly 40 percent each, while county funds total 18 percent. Approximately 2 percent of the total is derived from non-tax sources for certain service charges and fees. These percentages vary significantly from state to state. They are influenced primarily by population, tax structures and the willingness of local officials to pick up a larger percentage of the total expenditures.

TABLE 1
Amount and Percent of Cooperative Extension Funds Available

| Fiscal Year | Federal | | State | | County | | Non-Tax Amount (from state) | | Total |
|-------------|---------|----|---------|----|---------|----|-----------------------------------|---|---------|
| | Amount | % | Amount | % | Amount | % | Amount | % | |
| 1915 | 1,486 | 41 | 1,044 | 29 | 780 | 22 | 287 | 8 | 3,597 |
| 1919 | 9,039 | 62 | 2,961 | 20 | 2,291 | 16 | 371 | 2 | 14,662 |
| 1924 | 6,924 | 37 | 7,040 | 37 | 4,259 | 23 | 656 | 3 | 18,879 |
| 1929 | 8,573 | 38 | 6,406 | 28 | 6,282 | 28 | 1,252 | 6 | 22,513 |
| 1934 | 9,376 | 47 | 4,889 | 25 | 4,844 | 24 | 787 | 4 | 19,896 |
| 1939 | 17,968 | 56 | 6,582 | 20 | 6,676 | 21 | 890 | 3 | 32,116 |
| 1944 | 18,997 | 52 | 8,466 | 23 | 8,168 | 22 | 1,110 | 3 | 37,740 |
| 1949 | 30,531 | 46 | 18,867 | 29 | 14,214 | 22 | 2,121 | 3 | 65,733 |
| 1954 | 32,163 | 36 | 33,875 | 38 | 21,166 | 24 | 2,327 | 2 | 89,531 |
| 1959 | 53,715 | 40 | 49,517 | 37 | 30,102 | 22 | 1,502 | 1 | 134,836 |
| 1964 | 67,108 | 38 | 69,907 | 39 | 37,804 | 21 | 3,101 | 2 | 177,920 |
| 1969 | 80,762 | 33 | 106,326 | 44 | 50,288 | 21 | 4,576 | 2 | 241,952 |
| 1974 | 165,605 | 41 | 161,897 | 40 | 71,744 | 18 | 8,206 | 2 | 407,452 |
| 1978 | 215,300 | 37 | 245,638 | 42 | 111,019 | 19 | 14,787 | 2 | 586,744 |
| 1982 | 302,920 | 36 | 368,846 | 43 | 157,671 | 18 | 24,471 | 3 | 853,908 |

“Amount and Percent of Cooperative Extension Funds Available.” By Source, Fiscal Tabulation, Office of Administrator of Extension Service, USDA, 1982.

In fiscal year 1982 Texas received the largest amount of Smith-Lever funds—more than \$50 million or 32.2 percent of its budget. Alaska and Rhode Island received the least—\$2 million or 61.9 percent of their budgets. Based on the percent of federal funds in a state’s budget, Pennsylvania, Delaware and Rhode Island received the most (54.8 percent to 61.9 percent). California, Colorado and Kansas received the least (less than 24 percent).³

These funds are largely public funds, especially tax money. Other sources of financial support for extension programs include donations and “user” or “service” fees. The largest of these is donations primarily for 4-H and youth work; these funds, however, never appear in Cooperative Extension Service receipt and expenditure statements. These donations go to county, state or national 4-H foundations. They are used to support extension service’s 4-H and youth activities in many ways, but they never go directly for salaries or operating expenditures incurred by the extension service.

User or service fees are included in various state extension service budgets. As the term implies, these are fees or costs primarily associated with some service, such as sale of publications, farm management association membership, reimbursement for special studies, sale of record books, soil testing and more.

An example of receipts and disbursements for a typical state extension service is illustrated in the following two tables.

| TABLE 2 | | | TABLE 3 | | |
|---|--------------|---------|---|--------------|---------|
| Fiscal Year 1982 Receipts Iowa Cooperative Extension Service | | | Budget for Fiscal Year 1982 Kansas Cooperative Extension | | |
| Source | Amount | Percent | Item | Amount | Percent |
| USDA (Federal) | 8,063,987 | 35.6 | Salaries | \$17,627,786 | 78.8 |
| Iowa (State) | 8,902,098 | 39.3 | Travel | 1,298,756 | 5.8 |
| County | 5,504,350 | 24.3 | Equipment | 710,903 | 3.2 |
| Non-Tax | 181,213 | 0.8 | Other Operating Expenses | 2,724,434 | 12.2 |
| TOTALS | \$22,651,648 | 100.0 | TOTALS | \$22,361,879 | 100.0 |

“Appropriations by Source for Cooperative Extension Service,” Extension Service, USDA, Washington, D.C.: 1982.

Personal correspondence with Kansas Cooperative Extension Service, Kansas State University, Manhattan, Kansas.

Educational Programs at the State and National Level

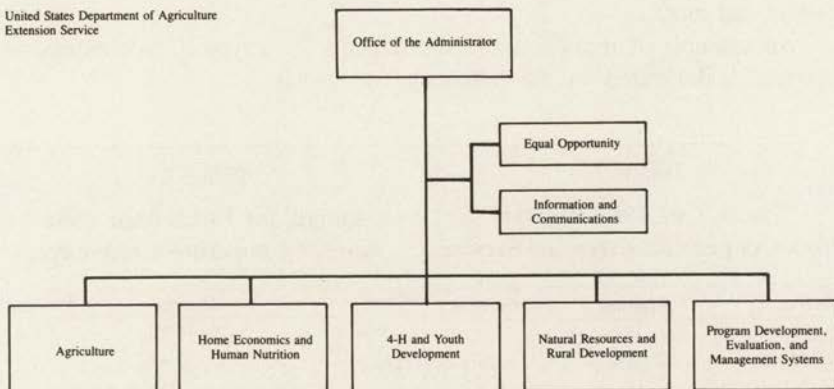
Extension service's educational programs are developed on the basis of felt needs and their consequent problems at local and county levels. As a result, state extension activities, for the most part, are divided into four broad areas: 1) agriculture; 2) home economics; 3) 4-H and youth work; and 4) community resource development.

Challenge and Change . . . A Blueprint for the Future, published by Extension Service, USDA, in April 1983, reported, "The mission of the Extension Service, USDA, is to provide national leadership and represent the U.S. Department of Agriculture within the Cooperative Extension system. The mission of the Cooperative Extension system is to improve American agriculture and strengthen American families and communities through informal, research-based education."⁴

The organization of Extension Service, USDA, is in five units: agriculture; home economics and human nutrition; 4-H and youth development; natural resources and rural development; and program development, evaluation and management systems. There are two staff units: equal opportunity, and information and communications. An extension service organization chart is shown in Table 4.

TABLE 4
Extension Service Organization Chart

United States Department of Agriculture
Extension Service



MISSION: The mission of the Extension Service, USDA, is to provide national leadership and represent the U.S. Department of Agriculture within the Cooperative Extension system. The mission of the Cooperative Extension system is to improve American agriculture and strengthen American families and communities through informal, research-based education.

Challenge and Change—A Blueprint for the Future. Extension Service, USDA, Washington, D.C., April 1983.

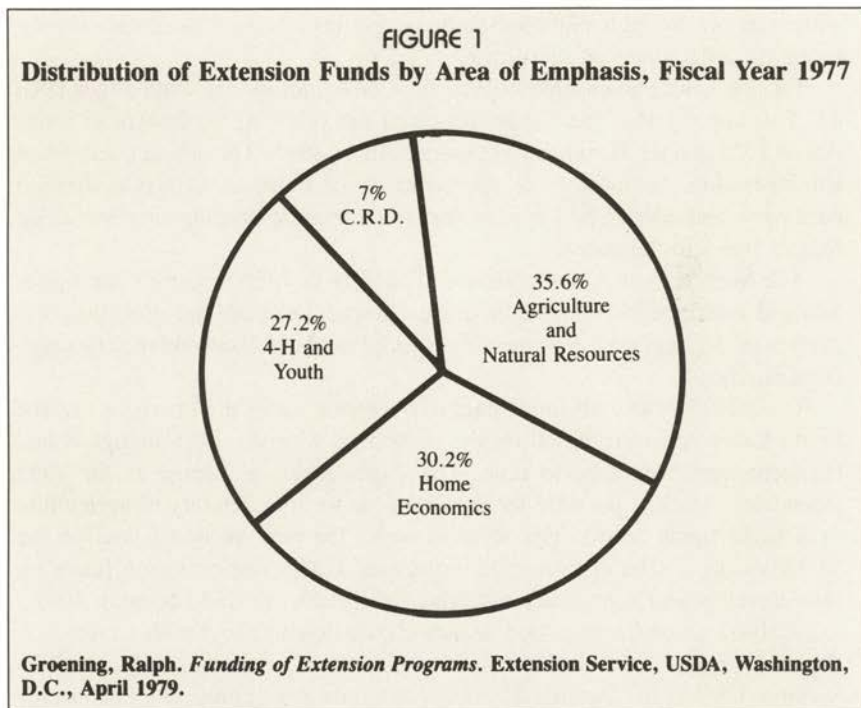
National priorities partly dictate what state activities are emphasized. For example, adequate food and fiber production for U.S. citizens will always be a number one priority. How the states ultimately implement this rests on the shoulders of state and county administrators and their local advisory boards. The USDA and its extension arm do not allocate production targets or goals to various state and county units. U.S. agriculture is too diverse and farmers are too independent for that to work. Generally, producers respond more to prices in the marketplace than to guidelines suggested by USDA officials.

Allowing county and area extension professionals and their lay advisers to develop programs dictated by local conditions is a unique aspect of the Cooperative Extension Service. The Kansas Extension Council Law makes clear this point of view: "It shall be the duty of said extension council to plan the educational extension programs of the county . . . All such program plans shall be subject to final approval by the executive board of the county extension council."⁵

Annual plans of work are required of every extension worker, county or area unit and each state extension service. Many counties develop three- to five-year programs of work. States do this as well. These plans all serve to guide extension professionals in their daily educational tasks. All these plans and activities make up just one small piece of a coordinated and mutually agreed upon nationwide extension educational effort.

Allocation of Resources to Program Areas

Programs for agricultural production and natural resource management receive the major portion, about 35.6 percent, of total extension funds. Home economics programs receive 30.2 percent while 4-H and youth programs receive 27.2 percent. Figure 1 presents this in graphical form.



At the end of fiscal year 1981, the number of extension workers employed was 17,799. Of these, 11,356 were appointed county agents; 655 were area agents; 693 were county agent supervisors; 618 were state directors and other administrative personnel; and 4,477 were state specialists.⁶

Legislation Affecting the Cooperative Extension Service

As early as 1918, Congress made federal funds available to supplement extension efforts authorized by the Smith-Lever Act. These funds combated the emergency requirements of World War I in 1918 and 1919. As the years passed, the need for additional funds to meet normal growth as well as future emergencies became evident. As a result, Congress passed acts that directly or indirectly affected the Cooperative Extension Service. These include the Capper-Ketcham Act of 1928; certain funds for educational phases of the

Agricultural Adjustment Act in fiscal years 1933 through 1935; the Bankhead-Jones Act of 1935; funds during World War II from the War Food Administration as well as from the 1943 Farm Labor Appropriation Act; and the Bankhead-Flannagan Act of 1945.

In 1949 representatives of USDA and the Extension Committee on Organization and Policy (ECOP) opened discussions on the consolidation of extension funds. At that time extension service was receiving funds from nine authorizations through slight variations of the formula used to allocate money to the different states and territories.

Finally, Congress enacted in 1953 the *Consolidation Act*, Public Law (PL) 83. This law repealed the Capper-Ketcham Act of 1928, the Bankhead-Jones Act of 1935 and the Bankhead-Flannagan Act of 1945. The new act simplified administration, authorized the appropriation of funds as Congress deemed necessary and established a new formula for appropriating any increased federal funds to the states.

The Smith-Lever Act was amended slightly in 1955 to permit appropriation and authorization of funds to disadvantaged areas and the allocation of 4 percent of the total budget to meet the special needs of disadvantaged farms or farm families.

Until 1955 nearly all funds paid to the states under the provisions of the Smith-Lever Act were based on the authorized formula, even though it had been changed from time to time. The "special needs" clause in the 1955 amendment made it possible for the first time for the secretary of agriculture to allocate funds outside this formula under the new Section 8 and on the advice of the USDA extension administrator. Under that provision funds for rural development were made available for fiscal years 1957 through 1961.

A 1962 amendment added a new dimension to the Smith-Lever Act. Popularly called Section 3(d) non-formula funds, it authorized Extension Service, USDA, to "receive additional amounts as Congress shall determine for administration, technical and other services and for coordinating the extension work of the Department and the several States, Territories and possessions."

Funds were first received under Section 3(d) in fiscal year 1965 for the pesticide chemical program and for expanding extension work in the Appalachia region. The states do not have to match these non-formula funds from their own sources.

A number of significant programs were started with Section 3(d) funds. The Expanded Food and Nutrition Education Program (EFNEP), funded in 1970, is the best known. The first appropriation of \$4 million for extension work at the 1890 land-grant colleges and Tuskegee Institute was allocated in fiscal year 1972. In the same year \$1 million was appropriated for special rural development activities. In 1973 a pest management program was initiated for \$500,000 and later grew to \$4.435 million by fiscal year 1978. In 1975 an expanded farm safety educational program was funded, and a special "pesticide impact assessment" program was initiated in 1977. An expanded

urban gardening program, once a part of EFNEP, was given its own \$3 million allocation in fiscal year 1978.

Food and Agricultural Act of 1977

The most recent federal legislation affecting Cooperative Extension Service funds was the Food and Agriculture Act of 1977, PL 95-113. Section 1464 authorized funding for fiscal years 1978 through 1982 as outlined below.

| Fiscal Year | Amount Authorized |
|-------------|-------------------|
| 1978 | \$260,000,000 |
| 1979 | 280,000,000 |
| 1980 | 300,000,000 |
| 1981 | 320,000,000 |
| 1982 | 350,000,000 |

The amount authorized and the amount actually appropriated are completely different. For example, *total* federal appropriations for extension service for fiscal year 1978 were \$257.562 million. This amount includes Smith-Lever Act funds as well as several other special program funds administered by extension service. It also includes funds for retirement, penalty mail and administration of extension service at the federal level. Slightly more than half, about 57 percent, of total Cooperative Extension Service funds are distributed in accordance with the statutory Smith-Lever formula in Section 3(c) of the act.

Highlights of the Food and Agriculture Act of 1977 that affected extension service include:

Section 1407, which established the Joint Council on Food and Agricultural Sciences;

Section 1408, which established a National Agricultural Research and Extension Users Advisory Board;

Sections 1425 - 1428, which instructed the USDA secretary to establish a National Food and Human Research and Education Program;

Sections 1440 - 1443, which amended the Rural Development Act of 1972 to allow paraprofessional personnel to work on small farm research and extension programs;

Section 1444, which established guidelines for annual appropriations to 1890 land-grant college funding;

Sections 1447 - 1455, which amended Smith-Lever Act to provide for dissemination of practical information on agriculture-related use of solar energy;

Section 1458, which directed the USDA secretary to assist the agency for international development with agricultural research and extension programs in developing countries;

Section 1459, which required the USDA secretary to submit to Congress by March 31, 1979, an evaluation of the Cooperative Extension Services;

Section 1502, which stressed human nutrition and aquaculture as some of the USDA's basic responsibilities.

Renewable Resources Extension Act of 1978

The Renewable Resources Extension Act (RREA) of 1978, PL 95-306, effectively coordinated natural resource programs through interagency planning. Emphasis was placed on upgrading the productivity of private forests and rangelands through an expanded and comprehensive extension program. Section 5(a) of the act states the RREA shall “provide national emphasis and direction as well as guidance to State Directors and administrative heads of extension for eligible colleges and universities in the development of their respective State renewable resources extension program.” The act authorizes \$15 million per year for 10 years beginning with fiscal year 1979.

Advisory Bodies for USDA Now Functioning

Congress established two advisory bodies under the 1977 Food and Agricultural Act to provide more effective coordination of extension service with wider public participation. The **Joint Council on Food and Agricultural Science** (Section 1407) is composed of representatives of the public and research and extension institutions. It provides a forum for evaluating a wide range of agricultural work to identify areas of duplication as well as research and education needs. Recommendations in an annual report are presented by the council to the USDA secretary.

The **National Agricultural Research and Extension Users Advisory Board** (Section 1408) is the second advisory body. Like the joint council, the Users Advisory Board (UAB) reviews the direction and adequacy of agricultural programs. The UAB is composed of individuals who represent the end users of the department’s information and programs. This board also submits an annual report to the USDA secretary and an appraisal of the secretary’s recommendations and proposed budget. This second report goes directly to the president and four congressional committees.

Extension Education Provided Under Other Acts of Congress

Most people look to Extension Service, USDA, and the Cooperative Extension Services across the country as the educational arms of the USDA. Congress has obviously accepted this position because it has passed and funded legislation for other agencies and then directed the extension service to conduct the educational aspects of the act.

The major acts of this type include:

Clarke-McNary Forestry Act (1928) that earmarked federal funds for salaries of state extension foresters;

Agricultural Marketing Act (1946) that emphasized the need for more educational work in marketing, transportation and distribution of agricultural products;

Amendment to the District of Columbia Education Act of 1968 (PL 90-354) that authorized extension programs in the District of Columbia

and designated Federal City College as a land-grant institution for purposes of extension work. Under this act \$75,000 was appropriated for fiscal year 1969. The amount totaled \$910,000 for fiscal year 1978.

Another act (PL-93-47 of October 1974) authorized the reorganization of the district's post-secondary institutions into the University of the District of Columbia and designated it as a land-grant institution under the Morrill Act of 1862.

Rural Development Act of 1972—Title V (PL 92-419) that emphasized improving the economics and living conditions of rural America. Title V of this act, "Rural Development and Small Farm Research and Education," authorized rural development and small farm extension programs. It also authorized appropriations of \$10 million for fiscal year 1974, \$15 million for fiscal year 1975, and \$20 million for fiscal year 1976. The sum appropriated, however, for fiscal year 1974 was only \$1.5 million, but by fiscal year 1978 it reached \$25 million.

Sea Grant College Act

A relatively new research and education program was patterned after the land-grant system under the National Sea Grant College and Program Act of 1966. This act provided for applied research, formal education and advisory services for the development of off-shore marine and Great Lakes resources. It also authorized the establishment and operation of sea grant colleges and programs.

The term sea grant college refers to recognized public and private institutions of higher learning. This has been interpreted to imply that such institutions could be appropriately sponsored by any or all of the 30 states bordering the Great Lakes and the oceans. Even inland states could participate if needs so dictate.

Sea grant colleges were created to simultaneously perform research, education and advisory (extension) services. It took three separate acts and 52 years for the land-grant colleges to be assigned the same roles. The sea grant program is small but growing. For fiscal year 1979, \$35 million was budgeted from federal sources. The act, however, requires matching funds in the ratio of one nonfederal dollar to every two federal dollars.

In approximately two-thirds of the 30 sea grant states, the advisory function is integrated with and administered by the Cooperative Extension Service. At the national level the program is administered by the Office of Sea Grant, National Oceanic and Atmospheric Administration of the United States Department of Commerce. The advisory arm of Sea Grant comprises approximately 300 specialists and agents popularly called "county agents in hip boots."

The sea grant program's advisory services are based on person-to-person communication with users, whether they are industry or community leaders or the general public. These services vary in detail, but they are typically

statewide in scope, university-based and performed under sea grant sponsorship. The advisory services have three main purposes:

- to transfer knowledge in a form useful to people;
- to encourage people to adopt this knowledge;
- to stimulate others to carry out research to solve coastal problems.

Effective advisory services such as Sea Grant and the Cooperative Extension Services are designed to meet multiple interests. A publication by sea grant summarizes these very well.⁷

Advisory services are not just public relations efforts—although when properly performed they can have appreciable public relations value.

Advisory services are not just information activities—although information activities are part of every fully developed advisory program.

Advisory services are not just the normal communications between an applied researcher and those for whom his/her research is intended—although that is an integral part of applied research.

Advisory services are not just an aspect of overall program administration—although every administrator is involved in advisory services to some extent.

Advisory services are not just a collateral duty for existing staff—although such staff can be immensely helpful in the implementation and delivery of successful marine advisory services.

Advisory services are not just continuing education programs—although such programs can be a powerful supplement to problem-solving advisory service programs.

Advisory services are not a consulting service—although consultation is a necessary component in understanding individual situations well enough to design an educational program.

Notes

¹Sanders, H. C., ed. *The Cooperative Extension Service*. Englewood Cliffs, New Jersey: Prentice-Hall, 1966.

²“State of Missouri Statutes Pertaining to University of Missouri Extension Programs.” Missouri Extension Service, undated, but early 1960s.

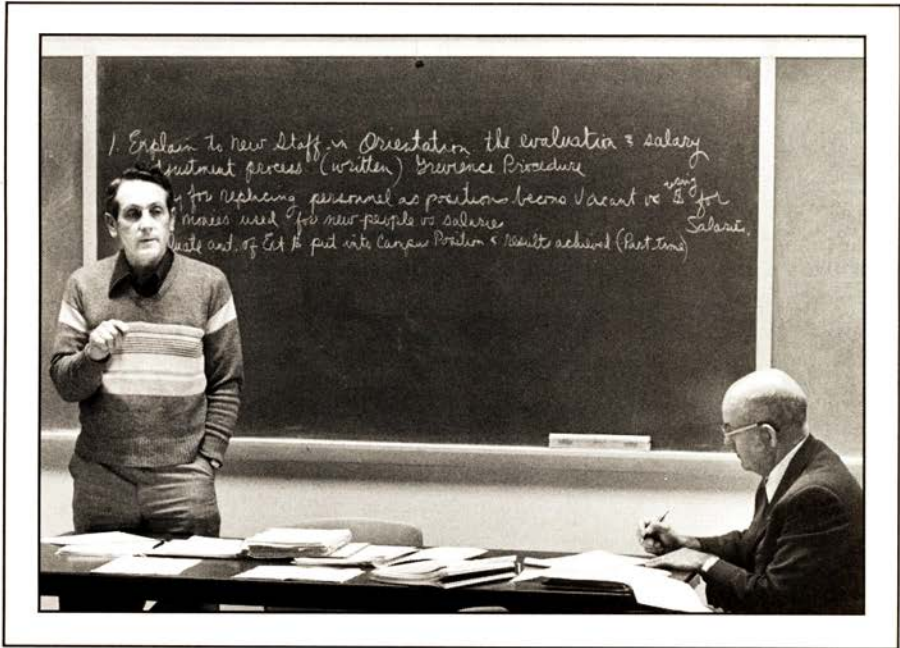
³“Appropriations By Source for Cooperative Extension Service,” Extension Service, USDA, Washington, D.C. Information material supplied to state extension directors in February 1982.

⁴*Extension Service. Challenge and Change . . . A Blueprint for the Future*. USDA, Washington, D.C., April 1983.

⁵“Handbook for County Extension Councils.” Kansas State University, Cooperative Extension Service Publication 350, Manhattan, Kan.: October 1975.

⁶Letter from administrator of Extension Service, USDA, to state extension directors and extension administrators, Nov. 16, 1981. Subject: “Salary Analysis of State Extension Service Positions.”

⁷*Effective Marine Advisory Services*. Office of Sea Grant, U.S. Dept. of Commerce, Washington, D.C., April 1978.



Management and Organization Within the Cooperative Extension Service

Many organizations seem to just grow without a plan for the process and requirements of growth. Ideally, decisions on staffing, budgets and other organizational makeup should be made after operational functions are outlined and objectives are clearly defined and accepted. Often, as these objectives and functions are identified, a different organizational structure evolves or an existing form is modified.

Drucker, a foremost management consultant, writes:

Objectives are not fate, they are direction. They are not commands, they are commitments. They do not determine the future; they are means to mobilize the resources and energies of the business for the making of the future . . . Objectives are always based on expectations, and expectations are, at best, informed guesses.¹

Management by Objectives

The Cooperative Extension Service has only recently adopted the principle of "management by objectives" (MBO). This term, adopted in 1969, was first coined in 1954 by Peter Drucker in a discussion of management in business. He notes:

What the business enterprise needs is a principle of management that will give full scope to individual strength and responsibility and at the same time give common direction of vision and effort, establish team work and harmonize the goals of the individual with the common weal . . . The only

principle that can do this is management by objectives and self-control.

The greatest advantage of management by objectives is perhaps that it makes it possible for a manager to control his own performance. Self-control means stronger motivation: a desire to do the best rather than just enough to get by. It means higher performance goals and broader vision.²

The term "management" more appropriately describes extension service's approach to its educational role than the term "administration." The desired end result of getting a job done as quickly and efficiently as possible is the same for both management and administration, but the means tend to be somewhat different. Administration acts on directives and orders while management functions through guidance, advice and coordination.

Drucker's description complies with the Cooperative Extension Service at the county and area levels where faculty carry major responsibility for the program, exercise a high level of self-control and do much more than "just enough to get by." To get the job done they exhibit cohesive teamwork, strong dedication and a sound grasp of long-term objectives.

In the broadest sense all extension faculty are managers. Some, such as state and area directors, have higher managerial responsibility and authority than others, but county directors also manage activities of significant size, especially in some urban counties. All county faculty work with, guide, supervise, encourage, support and counsel program participants and volunteers.

Extension service cannot do without managers because of the number of people it employs. For example, some state services employ more than 700 faculty members. The Cooperative Extension Service also needs a cadre of managers to perpetuate itself. This necessitates a system for continual recruitment of new personnel, specialized academic and in-service training, career promotion and recognition of an individual's special abilities through salary increases and broader responsibilities.

Management is not an end in itself. It is a means to an end, which makes the MBO approach appropriate for extension service.

The first requirement of MBO is that the vision and energy of an individual manager be directed toward the ultimate goals of the organization. This requires major effort and special instructions because managers are not automatically directed toward a common goal. Drucker says, "The objective of every manager should spell out his contribution to the attainment of company (in this case, the Cooperative Extension Service) goals in all areas of business."³ He also cautions, "Each manager should have the information he needs to measure his own performance and should receive it soon enough to make any changes necessary for the desired results."⁴

This is precisely what every extension professional does as individual plans of work are developed and built around program objectives. In this *decision-making process* the final outcome is the sum of those judgments which affect a course of action within extension service's total educational program. An understanding of this process is important because organizations are structured around the decision-making process and how decisions are implemented.

The Decision-Making Process

A characteristic of the Cooperative Extension Service is that professionals at all levels have independence within the organization. This independence results from the decentralization of the extension service as an organization and the manner in which the program objectives are developed to meet localized problems. Independence, however, comes with the responsibility of operating with integrity, dedication, wisdom, economy and efficiency.

Clarence M. Ferguson, a former administrator of Extension Service, USDA, outlined the five distinct phases in the decision-making process as

- Getting the problem clearly defined.
- Making a thorough analysis of the problem.
- Developing alternate solutions.
- Selecting the most acceptable solution.
- Taking appropriate action to implement the decision.⁵

This process is really nothing more than working through a problem using logic and common sense. Extension workers teach this to farmers, homemakers and youth to help them confront new situations in their private lives. If extension personnel properly advise and counsel their clients in identifying problems and developing solutions, they do not need to tell them what to do. Instead, the individual, family or group decides on the final course of action. Decisions are easier to make, however, if precedence, tradition, policy and known expectations are kept in mind.

In a democratic society where the freedom of expression is a right as well as a privilege, as many people as feasible need to be involved in the decision-making process. This does not mean everything must be done by committee. It does mean that the ideas and opinions of those who will be affected by any final decision should be solicited. Generally, decisions are supported if the question "Who decided this or that?" can be answered with "We did." Such a practice also fosters good faculty and clientele morale, high productivity and a sound educational program. Education is extremely important because in a democracy timely solutions to problems depend on the quantity and quality of education as the basis for sound decision making.

Performance

Performance is the main criterion used to evaluate and judge the contribution of an individual to an organization. Another word for performance is output. Performance in an industrial setting is relatively easy to measure because units of production can be counted, and the quality of those units can be measured in concrete terms that are easily understood. Efficiency and economy are also easy to determine. For example, a monetary value can be assigned to the various parts and time used to make a desk or a filing cabinet.

This easy measurement, judgment and computation is not possible for the work of extension professionals whose end product might be "improvement of family life," for example, which may take years to assert itself. In an

educational enterprise such as the Cooperative Extension Service measuring performance and interpreting results is a difficult task.

Drucker has a sound idea about the type of measurements extension personnel need to evaluate their work. He gives the following advice.

These measurements need not be rigidly quantitative; nor need they be exact. But they must be clear, simple and rational. They have to be relevant and direct attention and efforts where they should go. They have to be reliable . . . and they have to be . . . self explanatory, understandable without complicated interpretation or philosophical discussion.⁶

The principle of MBO makes this difficult measurement process easier by directing the performance of all extension personnel toward the objectives of the organization as a whole. This allows an individual's performance to be appraised against previously established objectives. Such appraisal provides feedback that can be used as a tool for self-evaluation and self-improvement.

Drucker writes, "The greatest advantage of management by objectives is perhaps that it makes it possible for the manager to control his own performance."⁷ This is what happens when the extension professional prepares a plan of work based on operational level goals with the advice and consent of Extension Councils.*

MBO calls for self-direction and self-discipline. It forces individuals to make demands on themselves, colleagues and clients. In addition, it gives them input for the establishment of the objectives against which they will be appraised, unlike the common method of performance measurement that resides solely in the hands of a manager or supervisor.

If extension personnel accept the task of establishing objectives in clear terms that everyone can understand, the task of measurement and interpretation of performance is made easier. Just as it is with any responsive organization, form must follow function. In order to ensure a responsive extension service, management techniques and procedures will have to change as situations change. Competent extension professionals should always be alert to such situations and modify their actions accordingly. Resourceful and dynamic management is the key to making the extension service work.

Organizational Structure

The purpose of any organization is to coordinate the activities of its various members to achieve stated objectives. Broom and Selznick speak of four key elements of organization, which are

1. to provide *incentives* to its members so as to win and sustain their participation;
2. to set up an effective system of internal *communication*;
3. to exercise *control* so that activities will be directed toward achieving the aims of the organization;

*Extension councils are the legal, sponsoring bodies of local extension services. States might use slightly different titles for this group.

4. to adapt itself to external conditions that may threaten the existence of the organization or its policies . . . that is, maintain *security*.⁸

These key elements apply as a guide not only for the formal structure of extension service as an organization but also for extension work with individuals and groups. To be more specific: learners need incentives, a two-way flow of communication, activities directed toward objectives and assurance that the program exists for their benefit so they can justify their support of it.

The Cooperative Extension Service was an easy organization to manage in its infancy. The program was limited in scope, faculty members were few, much of the communication was face-to-face and work was restricted to accessible rural areas. Time and changing demands placed on the Cooperative Extension Service have complicated this simplicity. Faculty numbers have doubled since the end of World War II. Farm families, now numbering less than two million, make up less than 3 percent of the U.S. population. Funds from all sources have doubled over the past 10 years. All this and more have affected the organizational structure of extension service less than what could be imagined. This is so because extension service's basic operational form has been and still remains the county extension service.*

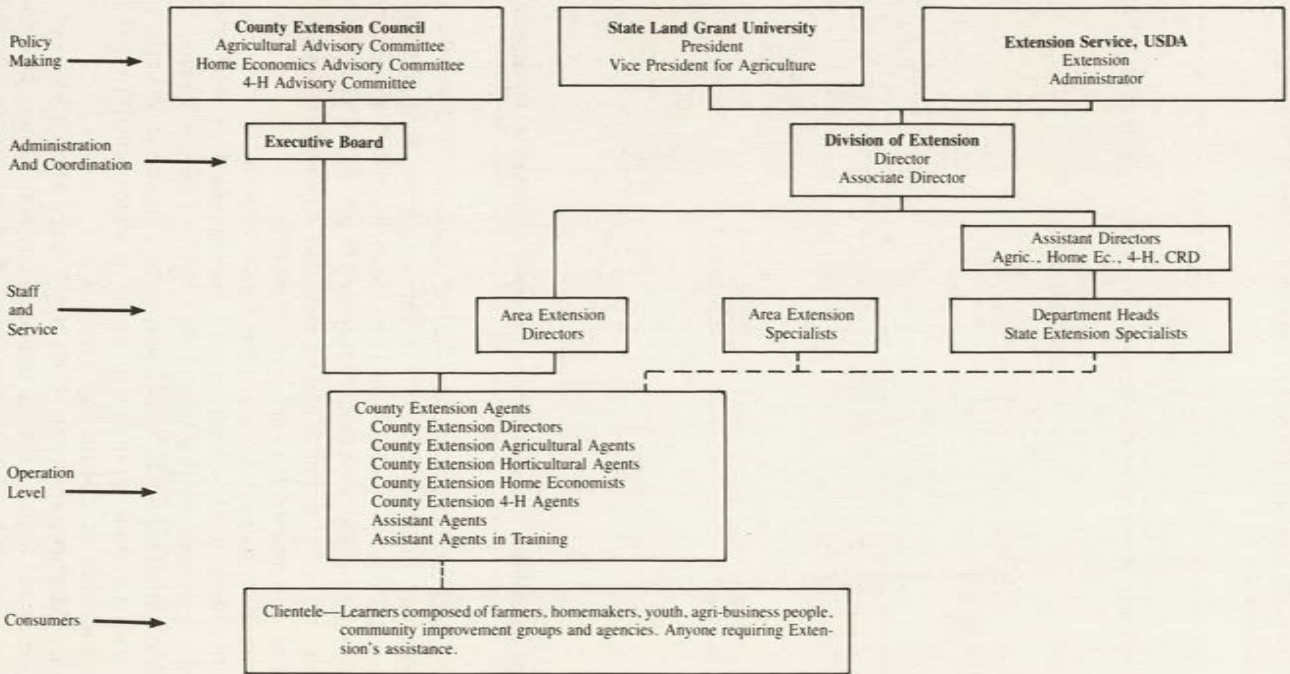
Figure 1 illustrates that form follows function in one type of organization of a Cooperative Extension Service. The solid lines in the figure indicate authority or a direct chain of command where policy directives, program decisions, management procedures and budgetary decisions flow from top to bottom within the organizational hierarchy. The dotted lines represent influence or the flow of information through written, spoken and visual forms from specialists to county and area faculty and finally to the consumer.

The figure also shows three top-level parties—county, state and federal—acting as equal partners in program and funding decisions. Policy formed at the top level is delegated to the middle-level management group for administration and coordination. County and area faculty fulfill the operational-level functions. The ultimate recipient is the user or consumer.

The hierarchial levels in this example are few. Only two management levels separate the policy-making bodies and the consumer. Compare this with organizational structures in other governmental bureaus or industrial complexes. Or compare it with a university's hierarchy of (1) board of regents, (2) president, (3) vice presidents, (4) deans, (5) department heads, (6) faculty members and (7) students.

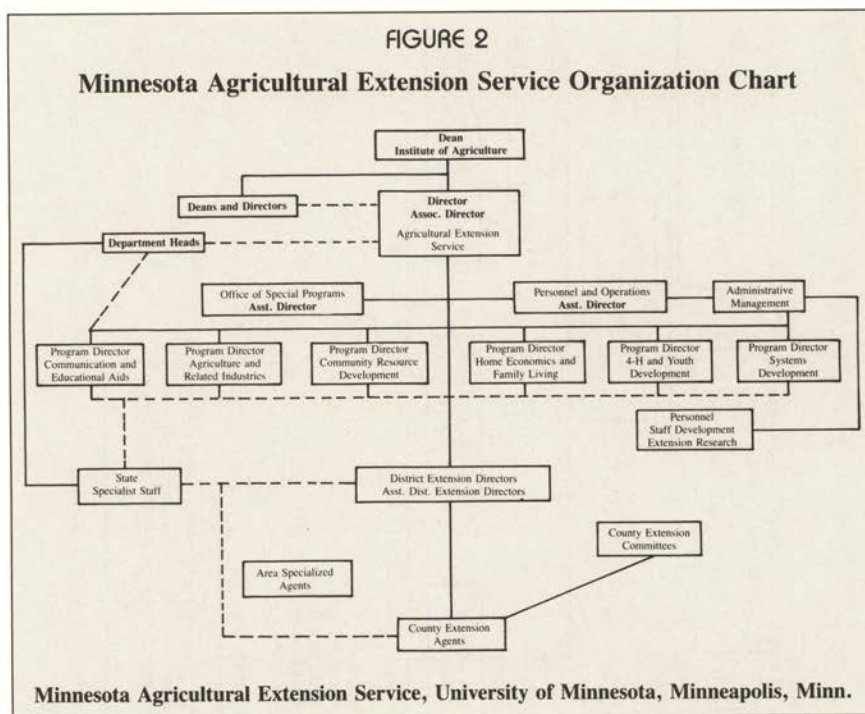
*There is an exception to this in a few states that have moved from the traditional county staffing pattern to an area or multicounty pattern. But even with this recently developed pattern (late 1960s), faculty members are still often located in a county but serve a larger geographical area as an "area subject matter specialist." This is strictly organizational because every county still has a county extension council, board or advisory committee established by law.

FIGURE 1
A Typical Organization of the Cooperative Extension Service



Cooperative Extension Service, Kansas State University, Manhattan, Kan.

Figure 2 depicts a more complete organizational chart of another Cooperative Extension Service, that of Minnesota.⁹ The staff functions that were not illustrated in Figure 1 (special programs, personnel and operations, administrative management) are present in every extension service organization of comparative size.



Young and Cunningham conducted a study in 1972 on the relative advantages and disadvantages of staffing agents by area compared with traditional staffing by county.¹⁰ The need for such research was expressed by the Extension Committee on Organization and Policy (ECOP) in 1969 because of complex and rapid technical and socioeconomic changes in society and the new use of area and multicounty staffing patterns.

The three common staffing patterns identified were¹¹:

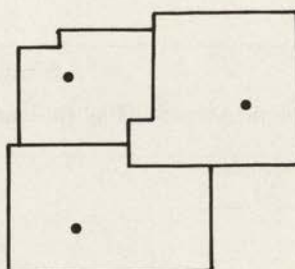
County/State (CS)—County agents are supported by state specialists. This is the traditional staffing pattern. See Figure 3 for a schematic diagram.

Multicounty/State (MCS)—County agents specialize in certain subject matter fields and trade services with agents in nearby counties with back-up support from state specialists. See Figure 4.

County/Multicounty/State (CMCS)—County agents work out of each county office and limit their work to that county with support by a number of specialists who work a multicounty area. Both county and area staff are supported by state specialists. See Figure 5.

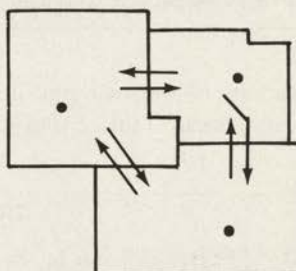
Three Common Staffing Patterns

FIGURE 3



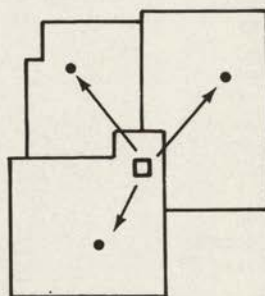
County and State
(CS)

FIGURE 4



Multicounty and State
(MCS)

FIGURE 5



County, Multicounty
and State
(CMCS)

Table 1 details how each area staffing pattern was used in 1972. Ten states followed the county only pattern. Nine used the area staffing pattern. The others were in the process of changing.

TABLE 1
Extent of Use of Area Staff as Indicated by Extension Directors in 1972

| Extent of Movement Toward Area Staffing | Number of States |
|--|---------------------|
| None | 10 |
| Have begun | 25 |
| Substantial | 4 |
| Mostly | 2 |
| Completely | 9 |
| TOTAL | 50 |

Young, Richard E., and Clarence J. Cunningham. *Area Agent Staff Compared with County-Only Staffing in the Cooperative Extension Service in the United States*. Ohio Cooperative Extension Service, Columbus, Ohio, December 1974.

Modifications of the two staffing patterns prevailed in extension's four major program areas. Table 2 illustrates these variations.

TABLE 2
**Staffing Patterns Used in the Program Areas of the 50 States
as Reported by State Program Leaders in 1972**

| Staffing Pattern | Agriculture | | Home Ec | | CRD | | 4-H | | Total | |
|--|-------------|--------------|-----------|--------------|-----------|--------------|-----------|--------------|------------|--------------|
| | # | % | # | % | # | % | # | % | # | % |
| 1. Multicounty, county office | 12 | 22.0 | 5 | 10.6 | 8 | 14.0 | 8 | 13.8 | 34 | 15.4 |
| 2. Area only, area office | 5 | 8.5 | 5 | 10.6 | 12 | 21.1 | 5 | 8.6 | 27 | 12.2 |
| 3. Area and county, sep- arate offices | 17 | 28.8 | 6 | 12.8 | 17 | 29.8 | 14 | 24.1 | 54 | 24.4 |
| 4. County only | 15 | 25.4 | 25 | 53.2 | 16 | 28.1 | 28 | 48.3 | 84 | 38.0 |
| 5. Area and county, county office | 4 | 6.8 | 5 | 10.6 | 2 | 3.5 | 2 | 3.4 | 13 | 5.9 |
| 6. Other combina- tions of area staffing | 5 | 8.5 | 1 | 2.1 | 1 | 1.8 | 1 | 1.7 | 8 | 3.7 |
| 7. State staff only | - | - | - | - | 1 | 1.8 | - | - | 1 | 0.5 |
| TOTAL | 59 | 100.0 | 47 | 100.0 | 57 | 100.0 | 58 | 100.0 | 221 | 100.0 |

Young, Richard E., and Clarence J. Cunningham. *Area Agent Staff Compared with County-Only Staffing in the Cooperative Extension Service in the United States*. Ohio Cooperative Extension Service, Columbus, Ohio, December 1974.

Young and Cunningham's study of the three basic staffing patterns revealed that county/multicounty/state was highly rated while multicounty/state received lowest marks. The study also showed that area agent staffing could ease conflicts between roles when a new position was introduced and could increase job satisfaction of professional workers through meaningful involvement in the organizational hierarchy.

The county-only pattern was regarded by clientele as better in several ways than either area staffing pattern. County-only staffing pattern clientele were more satisfied with programming processes, speed of response to requests for information and the usefulness of the information they received from extension agents.¹²

In a related study, Warner asked clientele to evaluate the effectiveness of the three different staffing patterns by program areas (agriculture, home economics, 4-H and community resource development (CRD)) based on national objectives within the respective program areas. In general, he found no great difference existed between staffing patterns.¹³

University-wide Extension*

Another organizational form of the Cooperative Extension Service is commonly referred to as University-wide Extension or "general" extension. It is designed to incorporate all adult education functions under one administrator who reports to the university president. Three land-grant universities adopted this model in the late 1960s—University of Missouri, University of Wisconsin and West Virginia University. An illustration of University of Missouri's structure is shown in Figure 6.

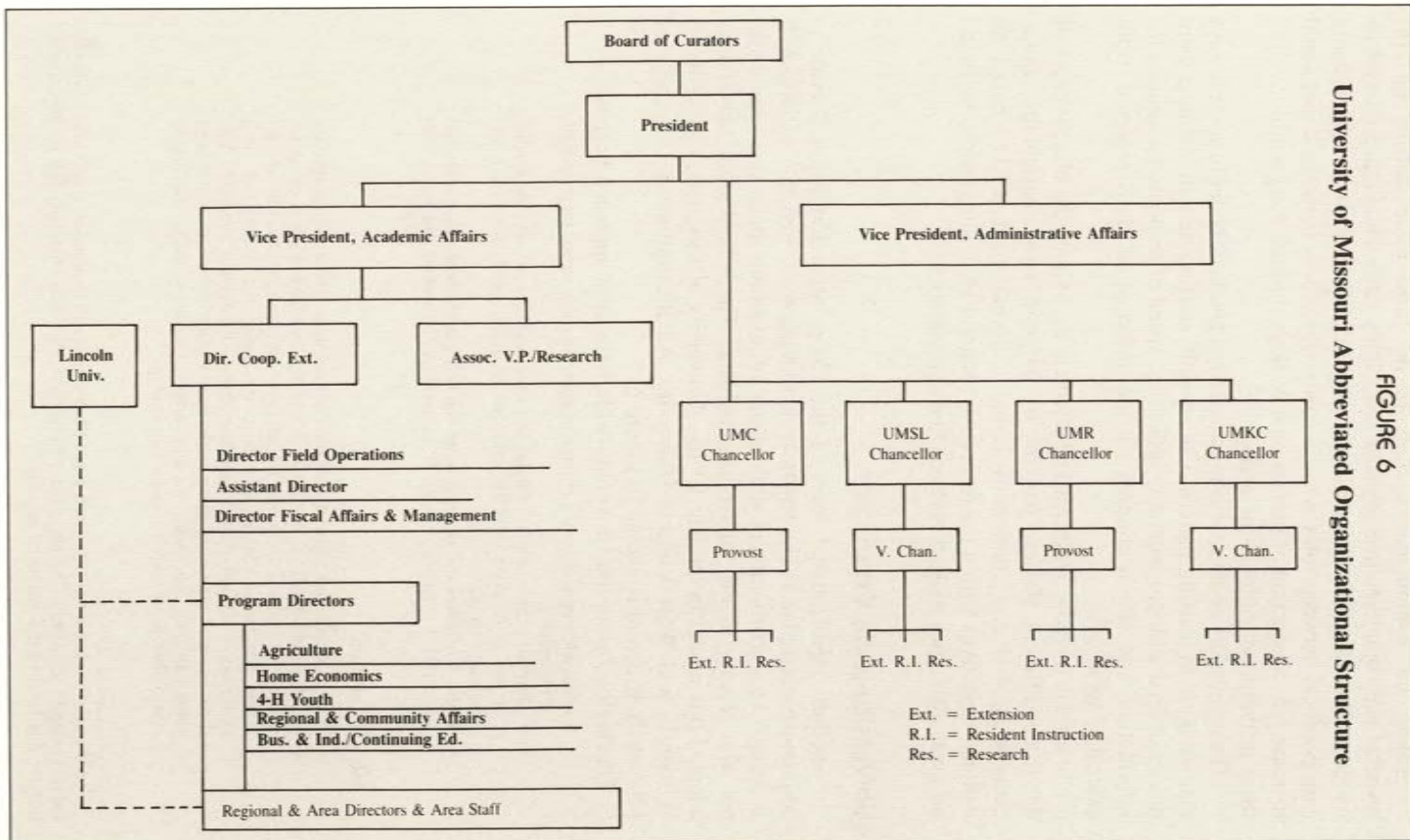
Harrington favors the University-wide Extension approach because

- when adult educators in a college or university join forces their strength is impressive;
- addressing the problems of today and endeavoring to improve the quality of life in America calls for joint, not separate, training, research and action programs;
- adult education will develop more and better assist both urban and rural interests if it reports directly to a central administration and works with all colleges.¹⁴

He also writes:

With a decade and more of operation behind them, these reorganizations can now be considered successful. Certainly they have made it easier for extension to tap all university resources for the training of adults and for action programs. Clearly they have broadened the outlook of adult educators at the universities that have chosen the merger approach. Yet, there has been no rush to jump on the bandwagon. Instead, there has been some movement backward. As an example, Oklahoma State, after trying consolidation, dismantled its joint operation.¹⁵

*Although the concept of University-wide Extension is still in practice, the term is rarely used today. General extension is the preferred generic term, but each university has its own specific title for this level of the extension service.



He goes on to say, "Agriculture is the key. Deans of Agriculture do not want to lose control of Cooperative Extension. Farm organizations fear that merger will reduce services to their clients . . . The picture probably will not change in the near future."¹⁶

General extension service appears to avoid some duplication of services, places increased emphasis on urban areas and problems, leads to economies of faculty and staff and increases levels of cooperation and coordination among state-supported and private institutions. This ultimately benefits the consumer of adult education programs who pays the bill in the end.

Notes

¹⁻⁴Drucker, Peter F. *Management*. New York: Harper and Row, 1974.

⁵Ferguson, Clarence M. *Reflections of an Extension Executive*. University of Wisconsin, National Agricultural Extension Center for Advanced Study, Madison, Wis., October 1964.

⁶⁻⁷Drucker, Peter F. *Management*. New York: Harper and Row, 1974.

⁸Broom, Leonard, and Philip Selznick. *Sociology*, 2nd edition, 6th printing. Evanston, Ill.: Row, Peterson and Co., 1961.

⁹Even though the formal title is still the Agricultural Extension Service, Minnesota's program covers the entire scope of a broad-based educational operation.

¹⁰Young, Richard E. and Clarence J. Cunningham. *Area Agent Staff Compared with County-Only Staffing in the Cooperative Extension Service in the United States*. Ohio Cooperative Extension Service, Columbus, Ohio, December 1974.

¹¹Pittman, Joe, Richard Young and Clarence Cunningham. "Extension Staffing Patterns: Clientele Views." *Journal of Extension*, Vol. XIV, July/ August 1976.

¹²Young, Richard E. and Clarence J. Cunningham. *Area Agent Staff Compared with County-Only Staffing in the Cooperative Extension Service in the United States*. Ohio Cooperative Extension Service, Columbus, Ohio, December 1974.

¹³Warner, Paul D. "A Comparative Study of Three Patterns of Staffing within the Cooperative Extension Service." Ph.D. Dissertation, Ohio State University, Columbus, Ohio, 1973.

¹⁴⁻¹⁶Harrington, Fred H. *The Future of Adult Education*. San Francisco: Jossey-Bass Publishers, 1977.

5



Developing Sound Extension Education Programs

The trademark of any effective educational agency is continuous and progressive change by its clientele. The Cooperative Extension Service has a sound reputation for promoting changes not just for the sake of change but for the improved welfare of people.

At the heart of effective extension education is program development. Program development implies dissatisfaction with an existing situation and concerns doing something about it. It also means that

- effective activities and programs must be developed because they don't "just appear;"
- good programs result from sound decisions not by chance;
- a program remains relevant for only a few years;
- development of a program takes skill, time and effort;
- there are tested procedures to follow;
- priorities are to be established that match the resources available.

A Process

Program development is a process of planning, implementing and evaluating an educational effort. It is a series of deliberate, thoughtful considerations that lead to a thoroughly prepared and well-executed plan of action.

Four basic points guide the program-development process. These were developed during 1972 and 1973 by the program development ad hoc committee of the national Extension Committee on Organization and Policy (ECOP). They are as follows:

1. **Expressed needs of people.** Audience or people generated programs

focus on their expressed needs, interests and concerns and are the result of local program development committees. The viewpoint of the clientele is the cornerstone of effective extension programs.

2. **Analysis of environment and other conditions of society.** The careful analysis by professionals such as agents, specialists, and special technical and industrial groups and by community groups of the environment and contemporary life broadens the program perspective and focuses programs on societal needs. Socio-economic trends are analyzed, and emergency problems are identified. The breadth and balance of educational programs are enhanced when they are built upon the framework.
3. **Emerging research results.** As new knowledge becomes available or new technology is developed by research and interpreted by specialists, it is possible to incorporate this into program determination, which then results in educational programs based on these new findings.
4. **Administrative response to recommendations and pressures of Cooperative Extension support groups.** There are many educational institutions, legislative bodies, government agencies, organizations, advisory groups, and special interest groups who have interests and concerns for extension educational programs. Their viewpoints and pressures must also be considered in program determination, especially where funding in the political process is involved.¹

The program-development process follows a series of logical, orderly steps which result in a sound, written document. The main steps include

- a review and factual description of an existing situation;
- analysis of the facts;
- identification of needs and problems that concern extension service's various clientele groups, based on that situation;
- establishment of long-range goals to meet these needs;
- determination of objectives;
- development of an annual plan of work that sets out priorities and deliberate courses of action;
- implementation of the educational plan;
- determination of progress by measuring and interpreting results;
- procedures to be followed in reporting and revising the program based on the new (changed) situation.

In actual practice this is a continuous process. It can be visualized as a never-ending spiral that ascends to an ever higher plane on a month-to-month and year-to-year basis as change occurs. Houle states it more simply: "The analysis or planning of educational activities must be based on the realities of human experience and upon their constant change."²

It must be stressed again that this process is not the task of professionals alone. It is a joint effort that must involve community and organizational leaders who represent various clientele groups, county and area extension faculty who take the lead as process implementors, and extension specialists and other resource persons who serve as consultants and facilitators. Legislation in many states designates who should be involved in this process. For example, the revised Kansas Extension Council Law notes "it shall be the duty of said Extension Council to plan the educational extension programs of the county."³

Historical Perspective

In looking at extension service's program development, several different approaches at various time periods have been identified. Morris describes three methods used in the early days of extension service.

In the early days the programs were predetermined, and farmers received what was offered by pioneer agents. Farm problems were apparent in the early days of agricultural education, and programs were easy to prepare . . . The solutions were fairly simple and easy to apply. In the main, the demonstration was used. (In the second phase) extension leaders saw that county extension organizations served as agencies not only through which agricultural information could be extended to farmers but through which local experiences and problems could be suggested by farmers as a basis for programs and further research. Thus farmers were soon made a party to the planning. Sources of farm income were listed . . . , factors limiting those incomes suggested, and projects selected on the basis of those factors . . . These community programs were coordinated into county programs by a county program-planning committee . . . The historians called this the period when programs were self-determined rather than predetermined as in the beginning.

. . . (in the third phase) farm management and economic facts as well as production factors were introduced in (the) county program-planning procedure. This gave great impetus to the gathering and assembling of facts (by specialists) upon which to build programs. In this fact-determined period . . . effort was made . . . to find the larger farm problems and to make plans of work. . . . County-wide commodity or project committee planning began to supplement and often replace the community committee's planning. . . .⁴

The predetermined phase covered the period from the farmers' institute days in the 1860s to approximately 1920 when men of science made available to farmers what seemed most needed from a scientific viewpoint. College instructors and early-day agents recognized a problem and set out to solve it.

The self-determined phase was prominent during the 1920s. This is sometimes called the grassroots approach to program development. It was a time-consuming process and caused some confusion because committees and agents found it difficult to establish priorities.

Fact-determined programs that considered local, state and even national trends appeared on the scene in the late 1920s. It was a contrast to earlier methods because it enhanced cooperation between agents and clientele. Established facts and trends were used as a means of developing objectives. During this period evaluation began to receive some consideration.

A partial return to predetermined programs became apparent in the 1930s. This was in response to the Great Depression when government-mandated programs dictated extension programs and agent activities. Some of these programs tended to isolate USDA and agricultural colleges from their traditional roles and functions. During the depression years many action programs of the USDA were initiated. Some of these programs required administration by local personnel, resulting in considerable confusion within the department and an overlapping of functions with extension agents' activities. Representatives of USDA and 27 land-grant colleges and universi-

ties met in 1937 and drafted an agreement intended to resolve some of these administrative problems.

Although the terms of this agreement were never fully implemented, a better understanding of the importance of a sound program-development process was achieved. It also recognized the importance and necessity of involving local lay leaders in planning and implementing educational programs as well as the need for increased cooperation and coordination in developing and implementing educational programs at community, county, state and national levels. These two principles of program development continue to form the basis for effective extension efforts. Boone and Kincaid note

. . . the decade closed with the realization of the need for local planning and involvement of representative lay persons in planning and executing programs. This era can be described as one of governmental program leadership because it combined emphasis on both predetermined emergency programs and recognition of the importance of including representative clientele in planning.⁵

The World War II years dictated a return, in part, to predetermined programs, but such actions could not really be compared with those of the early 1900s or the Great Depression years. Farmers and homemakers became more active participants in the program-development process. This was not only desirable but mandatory because extension manpower was severely depleted during the war years. Those agents remaining at home became deeply involved in the problems and programs of allocating manpower and materials and the administration of food prices and supplies.

The program-development process began to mature during the 1950s. Specialists identified the steps in the procedure more precisely as they devised models that could be studied, reviewed, tested and modified. The need for program development was emphasized as post-war problems of adjustment, over-production, rapid mechanization and migration to urban areas increased. Rural America was changing more rapidly than ever before.

In an effort to cope with these changes and trends and to take a forward-looking approach, efforts to project program needs were initiated. These four- and five-year programs attempted to review the situation in historical terms, develop projections based on these trends, hypothesize on the problems that were present as well as those that might arise and develop objectives and actions to solve them.

An even broader approach to program development surfaced in the late 1950s and early 1960s as rural development was emphasized. Extension service moved away from traditional, production-oriented programs in agriculture and expanded its activities with homemakers. The scope of 4-H activities was broadened and switched from a predominantly rural orientation to one that included urban and suburban youth.

Administrators and specialists took a closer look at the existing situation by considering the complex social and economic factors affecting extension service and its clientele. This updated emphasis called for closer coordination

and cooperation among the numerous agencies and organizations serving rural America. Despite this broadened emphasis, certain activities that focused on individual families were retained and even strengthened. The farm and home development programs of the late 1950s are an example of this intensified approach.

Management by objectives (MBO) was both a new phrase and a new emphasis in extension service and other governmental agencies in the late 1960s. The concept of identifying problems and establishing management-type objectives to solve them, however, was not new. Extension service had been establishing objectives based on clientele needs since its beginning a century before. MBO, however, stressed the importance of objectives at all levels of administration. In addition, it placed more emphasis on a numerical reporting, feedback and analysis system.

This sophisticated data gathering, reporting and retrieval system took less of the professional's time but became less useful as a tool for program development and evaluation. It also decreased some feel for the individual and group at the local level, reduced clientele involvement in the program-development process and placed less emphasis on the identification of long-range problems.

The belated recognition that extension service as a tax-supported agency must broaden its clientele base was one of the most significant changes in the 1970s. Farmers, homemakers and rural youth were no longer considered its only audience members. This did not necessarily affect the way extension programs were developed. It simply broadened the base and increased the numbers and types of clientele groups extension personnel were expected to reach and serve. These groups included urban homemakers and youth, elderly, minorities, low-income people, handicapped individuals, small business persons and more.

Currently, extension service is returning to a more intimate and personal approach to developing programs. Involvement of volunteer leaders is widespread and intense. Specialists and other resource persons in the local communities are assuming a bigger role. Communication and leadership skills required in programming are improving on both an individual and group clientele base.

Just as program development is the heart of any effective extension effort, *the key to any effective and sound extension education program is the involvement of interested and enthusiastic volunteer leaders who serve as representatives of the various clientele groups being assisted.*

Supporting Theory

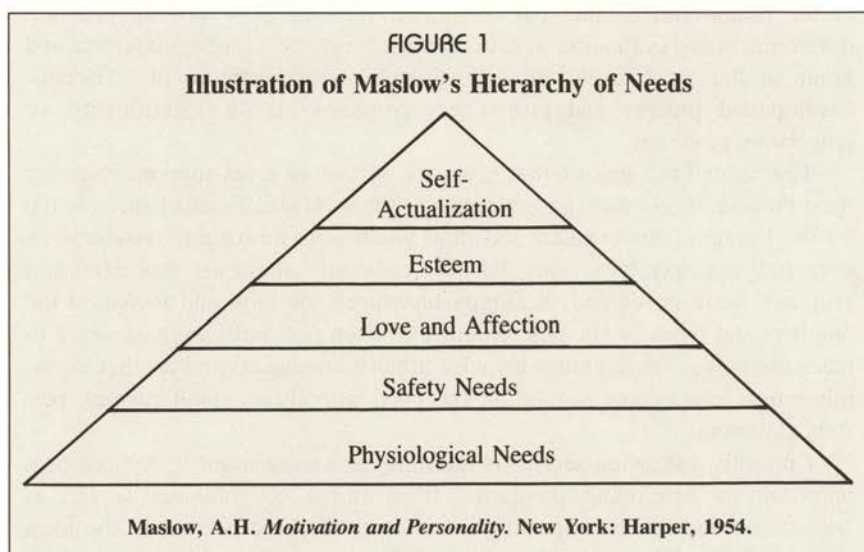
The basic foundation of extension education programs is the identification and establishment of need priorities. Needs spring from what individuals feel they want. Houle defines *need* as

... a condition or situation in which something necessary or desirable is

required or wanted. Often used to express the deficiencies of an individual or some category of people either generally or in some set of circumstances. A need may be perceived by the person or persons possessing it (when it may be called a felt need) or by some observer (when it may be called an ascribed need).⁶

This definition is appropriate for extension purposes because it includes individual and group needs. It also recognizes a distinction between something required—a necessity—and something desired—a want. Some extension literature refers to “felt” and “unfelt” needs. Houle’s “ascribed” need is synonymous with an unfelt need.

Many classifications of need can be found in psychology, sociology and education literature. Maslow developed a hierarchy of needs based on the reasoning that once individuals satisfy a basic need, they will begin to seek to satisfy a need at the next higher level. See Figure 1.



A thorough knowledge of the needs concept is fundamental if an extension educator is to understand what makes people tick and to develop suitable programs.

Everyone seeks to gratify needs by setting sights on objectives that when achieved will satisfy those needs. The primary purpose of extension service as an organization is to help individuals and groups develop the capacity to identify their needs, set objectives to satisfy those needs and develop a plan of action to achieve them.

An objective is a goal, aim or intended end result stated in response to a need, concern or problem. Educators and academicians may wish to make distinctions between objectives, aims, ends or goals, but for practical purposes in extension service, so little difference exists between them that many prefer to treat them synonymously.

Tyler says, “educational objectives become the criteria by which materials are selected, content is outlined, instructional procedures . . . developed . . .”⁷

Objectives have elements that can be recognized and incorporated into statements that serve as guides to thought and action of both the teacher and the learner. The more important elements reveal that objectives

- are rational and logical;
- are practical, feasible and achievable, based on resources available;
- identify the learner (audience);
- outline action required by the teacher and the learner;
- (usually) establish a time limit for achievement.

Objectives can be developed in a hierarchial manner just like needs. They also can be stated in very broad statements that outline the end result desired by an organization, business or nation. Or they can be stated in very specific terms which relate to an individual, short-run goal.

Programming Principles

When followed, a principle or series of principles produces a specific and predicted or anticipated result. In extension service the desired result is a sound education program effectively and efficiently conducted. In practice, principles are guides to action. Seven programming principles follow.

1. Program development is based on needs, concerns and problems of extension service’s clientele.

Extension service, operating as a decentralized organization, instructs each county to develop its own educational program. That amounts to more than 3,000 programs in the various state and territorial extension service areas. Thus, program development keeps in tune with local needs and problems. This contrasts with how business, industry and some governmental and educational institutions, especially those that operate in a centralized manner, set goals or targets by often arbitrarily allocating local units their pro rata share of the overall objective or task.

2. Programming is done with people not for them.

The one key to extension service’s success—local representatives—are in daily contact with their friends and neighbors. Thus, they are keenly aware of community needs and problems. People might ignore or even oppose a program developed by outsiders who tell them what their needs and problems are, how they should be solved and how their resources should be allocated. But the chances are great that they will support a program planned by local individuals. The broader the “people base,” the more realistic and acceptable is the final program.

3. Program development is a continuous process.

In a real sense extension education programs have no culminating point. When one objective is achieved, a higher or perhaps related objective is realized. Programs respond to constantly changing situations as well as

demands for higher knowledge and skill levels by people. As a result, programs cannot be set in concrete but should be flexible and capable of responding to changing needs and problems as they arise without waiting for the beginning of the next four- or five-year plan.

Every program-development model illustrates an ongoing nature, see Figure 2. Rigid programs with absolute goals and terminal points soon fall by the wayside. A "live" extension program grows or changes as the needs of its clientele groups change or expand.

4. Programs are based on a thorough analysis of facts relevant to a given situation.

A relevant and substantial body of facts is necessary if sound programming decisions are to be forthcoming. Extension personnel are fortunate because they have access to many sources of information—reports from the Bureau of the Census, USDA, state boards of agriculture, county and state vital statistics, chambers of commerce, industry sources and university research centers. Such data can be secured with little effort and expense to support localized information gathered through observation, surveys, records and reports. When local feelings and observations of a historical nature are added to facts gained elsewhere, sound decisions on program priorities and alternatives for action can be made.

5. Program development leads to greater cooperation, coordination and efficiency.

Most counties have a four-pronged extension program, i.e. agriculture, home economics, community resource development and 4-H and youth. Such an approach leads to numerous special projects and hundreds of activities during the program year.

Some urban counties have a large professional extension faculty as well as a number of paraprofessionals. In these counties the extension director is a full-time administrator.

In a complex situation cooperation among faculty members is essential. The four program areas must not be compartmentalized, and neither can faculty members ignore program areas outside their realm of responsibility. Instead, activities must be coordinated. The best example, perhaps, is a county fair where agriculture, home economics and 4-H program areas are all represented.

Cooperation and coordination must also be exercised with other adult education organizations and service agencies. Some of these are the school system; health department; other USDA agencies such as the Soil Conservation Service, Farmers Home Administration, Agricultural Stabilization and Conservation Service; chambers of commerce; social welfare; and volunteer assistance agencies. Activities and services of these agencies can and do overlap, resulting in some duplication of effort. Nevertheless, mutual support is necessary. Cooperation and coordination can help reduce duplication of effort, efficiently use community and county resources and increase timely and systematic implementation and orderly execution of programs.

6. Program development is a teaching-learning process.

Extension professionals and volunteers learn from each other as they develop, implement and evaluate educational activities and programs. The adage "two heads are better than one" underlies this principle.

Throughout the program-development process professionals are teaching volunteers the problem-solving method of analyzing a situation, identifying major problems and developing alternative solutions. These skills can be used by volunteers to tackle their own problems and by agents and specialists who learn more about the community, its people and their potential through the process.

7. Program development provides for the evaluation of methods and results.

Evaluation is extremely important in the program-development process. A simple equation illustrates the idea.

Description + Comparison = EVALUATION

Evaluation is intended to measure what has been done and how well it was done. The results are judged in terms of how well objectives were achieved. Information gained from evaluation is used to report results. It also may attempt to answer the question, "Where do we go from here?" Evaluation must be built into the program-development process at all steps, and the resources and time required for it must be allocated.

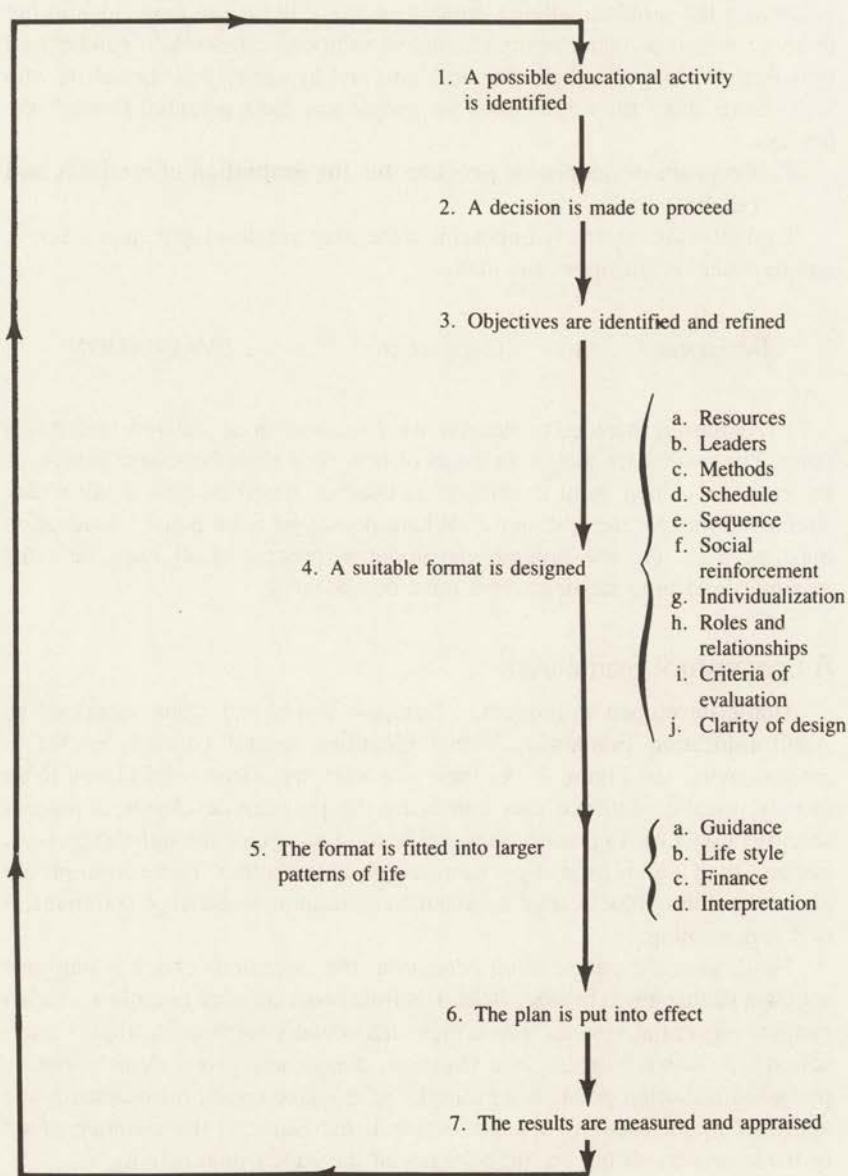
A Conceptual Framework

Houle developed a diagram, "Decision Points and Components of an Adult Education Framework," that identifies several concepts useful to programmers, see Figure 2. As these concepts are learned and placed in an orderly, mental sequence they can bring the program-development process sharply into focus. In practice they can be used as a guide through the process, just as a road map is used to get from one place to another. These concepts are also the building blocks used by extension educators to enhance communication and learning.

Houle uses the phrase *adult education*, but extension service is only one segment of this much broader field. His framework appears to outline a rather simple, sequential system. These elements actually represent complex interactions. As often happens in a situation, almost any given element can be picked as a starting point. For example, at any given point measurement and appraisal might occur by the professional, the learners, the clientele group or the observers sitting on the sidelines of the educational activity.

FIGURE 2

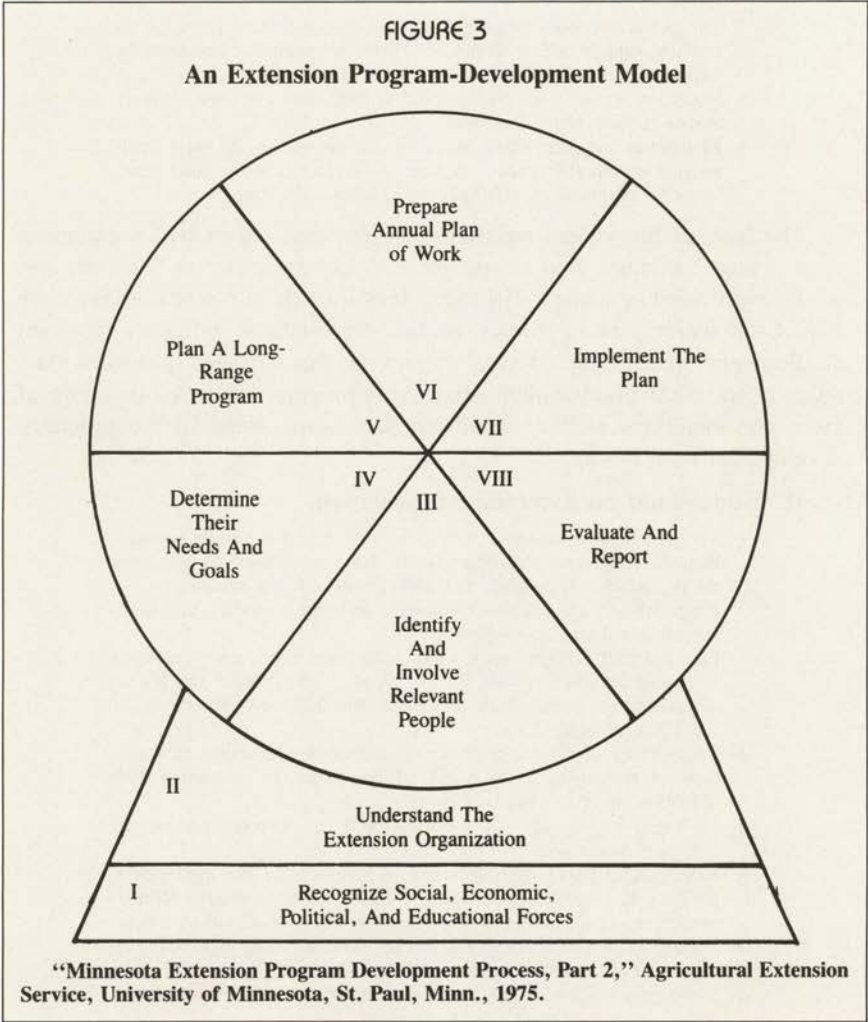
Decision Points and Components of an Adult Education Framework—
The Fundamental System



Houle, Cyril A. *The Design of Education*. San Francisco: Jossey-Bass Publishers, 1972.

A Program-Development Model

A number of program-development models have been developed over the past 15 to 20 years. The eight-step model in Figure 3 is widely used in Cooperative Extension Services today. It is a modified version of one developed by the program development ad hoc committee of ECOP. It illustrates the continuous series of complex, interrelated activities that occur throughout the process.



Each of the steps in the model leads logically to the next, but each has its own operational procedures. These include the following.

I. Recognize the social, economic, political and educational forces.

1. All kinds of human interaction affect the program-development process.
2. All groups, from the family through nations, base their activities and decisions on goals as well as norms and values.
3. Economic forces exert a strong influence and may dominate public decision making.
4. Many extension programs are difficult to measure in economic terms.
5. Program priorities, even though oriented toward fulfilling people's needs, must survive in the environment of economic forces which measure output in economic terms.
6. Extension service was born out of political action, and its program must be developed within a political setting. Thus, it is affected by political forces.
7. The political bodies, organizations and processes have provided for funding, support and development of extension service. They stress the importance of political forces to the extension worker.
8. Extension service, with units in every county, has an effective delivery system to keep people informed.
9. Elementary, secondary and higher education and vocational schools provide structural learning. An extension educator, on the other hand, bases his programs on informal, out-of-school activities.

The base of this model represents the environment in which extension service must function. Budget, people and facility resources for extension work are provided by society. The clientele or learners of extension service are a part of society. Many forces in this environment influence program development. Because these forces often cannot be controlled, programs must adapt to and accommodate them. Extension programmers must be aware of these considerations as they approach succeeding steps in the program-development framework.

II. Understand the extension organization.

1. The general philosophy of extension service is that people, through their own initiative, identify and solve their own problems when given the opportunity, knowledge and skills pertinent to the situation.
2. Extension service, a subsystem of the land-grant university, has ties to federal and county governments.
3. Line and staff functions exist within the structure, but heavy emphasis is placed on participation of colleagues. This makes for fragile administrative relationships and fixed responsibility but allows for flexibility, innovation and creativity.
4. The purpose of extension service is to provide educational programs that are responsive to the needs of the people by increasing their individual and collective well-being.
5. Each unit develops its own specific objectives which relate to overall extension objectives.
6. Extension workers must understand the kind of tasks they are asked to perform. It is essential that the role of each extension worker is defined, revised as needed and understood and shared by other staff members.
7. Different styles of management and priorities are to be expected in an organization as broadly based as extension service.
8. Many people are involved in the decision process. This management style contrasts the central, more autocratic forms.

All extension professionals have a responsibility to understand extension service and its relationship to the public because they must explain and interpret the organization to their various clientele groups. Extension service is unique in its organization of informal educational offerings and program-

development methods. To gain satisfaction from extension work, a staff member must know and have a high degree of empathy with the organization.

The broad missions of extension service are to

1. extend knowledge by providing objective, timely information from land-grant universities to enable people to make better decisions about their lives, families, businesses and communities;
2. stimulate and interpret research by identifying new information needs, stimulating research efforts within the land-grant system, interpreting research findings and presenting them in a meaningful form to target audiences;
3. develop and carry out informal education programs by providing practical, direct programs based on subject matter expertise of the system and the needs of the people.

All extension workers need to be familiar with the way the organization is structured in their state to carry out these broad missions. They also need to know the organizational arrangements existing in neighboring states. This includes an understanding of the relationships existing among the categories of workers within extension service. Extension workers must also be aware of how council and committee members external to the organization are elected or selected.

III. Identify and involve relevant people.

1. The extension professional must consider all potential target audiences in terms of their similar or group interest and their geographic location.
2. Within this audience the extension professional should focus on the section or parts which can be or would be affected by the educational programs considered.
3. After identifying audiences, extension professionals must involve people in the program-development process.
4. Individuals with leadership qualities within the audience group must be asked to provide input and to determine priorities so that
 - a. the program developed is at a level and contains the items the group believes are essential;
 - b. the people involved in planning the program become committed to its success and will promote and assist in its implementation.

Clientele involvement in the program-development process is a major strength of extension service. Corey said, "learning that changes behavior substantially is most likely to result when a person himself tries to improve a situation that makes a difference to him."⁸ The involvement of people with real needs situations has contributed to the effectiveness of the learning brought about by extension service.

Extension staff, working with their program development advisory and legislative committee, must identify needs and set priorities for programs to be undertaken. An inventory of the potential audience by extension project and geographic area is a first step in identifying relevant clientele.

A knowledge of the processes of social action and change, diffusion and adoption is useful in program development. Involvement of people is the key to programming that results in the achievement of program goals.

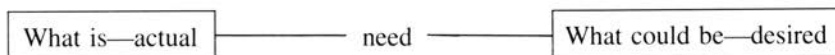
IV. Determine their needs and goals.

1. After the extension worker has identified audience members and

- involved them in the development of extension programs, their specific needs must be uncovered and translated into broad programmatic goals.
- Information on the situation confronting people must be gathered and analyzed at this stage of the program-development process to determine what has been, what is or what might be.
 - The extension worker must help the group set priorities after clearly identifying the existing problem.
 - When needs are identified and priorities are assigned, goals should be stated clearly so that the audience and the extension worker understand the problem and how it might be alleviated.
 - These goals are not instructional objectives. Instead, they outline a direction and suggest a basis for change rather than serve as a method of achieving this change.

The primary role of an extension staff member is to help effect desirable changes in the behavior patterns of individuals, groups or communities. These changes include increased knowledge, understanding and new attitudes and skills. Before change can occur, the needs of people must be identified and translated into goals and objectives. Learners' goals and educator's objectives set direction, program emphasis and provide a guide to the expected changes in various stages of program development.

A common definition compares need to a gap or missing link between the existing situation and some new condition assumed more desirable. Simply stated, need is a gap between "what is" and "what could be." For example:



Legans suggests these questions for determination of needs and the development of situational need statements.⁹

- Does a need really exist?
- Who has the need?
- How many individuals or families have the need?
- What are the people's attitudes toward their situation?
- Why does the need exist?
- In what way is the need significant (economically, socially or aesthetically)?
- What is the relative significance of the need?
- What will likely be the consequence one or more years from now if no effort is made to meet the need?

Extension education programs must seek to have people recognize the gap between the actual and the possible and assist them in placing values on obtaining the desired.

Raudabaugh, of Extension Service, USDA, has developed some criteria for judging statements of needs, interests and trouble areas for extension programs based on situational problems.¹⁰

- Are they people-centered, not subject-matter centered?
- Are they based on interests, concerns or needs of the people in the county, area, state as appropriate?
- Are they based upon the level of interest, understanding, skills, background and experiences of the people involved or to be involved?
- Do they include facts (data) that are:
 - current - most recent; belong to the present time;

- b. objective - express reality, not personal reflections or feelings;
 - c. documental - factual support for statements made;
 - d. pertinent - relevant or applicable to the matter in hand;
 - e. adequate - sufficient to indicate a definite need or interest?
5. Do they fall within the scope and policy of extension education's responsibility?

V. Plan a long-range program.

1. Very few of extension service's mission objectives can be achieved through one educational activity. Most require a series of educational activities over a long period of time to assist in correctly satisfying needs and solving problems identified by the audience.
2. Long-range programs suggest a three- to five-year master strategy be developed for each program.
3. The long-range program should be written and should include at least a statement of each of the following:
 - a. the present and recent past social, economic and educational situation and any other facts pertinent to the planned program;
 - b. the needs, wants and problems of clientele uncovered during the planned process;
 - c. long-term program objectives derived from the situation and the clientele and merged with extension service objectives;
 - d. coordination between appropriate extension workers and other groups in reaching the long-term objectives.

The long-range program is a master strategy for the broad purposes of extension service. It is comparable to a curriculum in a formal school setting. In the long-range program document, the needs and problems identified by the people are interfaced with the resources and capabilities of the extension organization in an extended program format, usually three to five years. It is here that educational principles take precedence for the extension worker.

Tyler asks four fundamental questions for consideration and development of any plan for curriculum and instruction:¹¹

1. What educational purposes should be attained?
2. What educational experiences can the educator provide that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can the educator determine whether these purposes are being attained?

The first two questions asked by Tyler are answered in the long-range program. The latter have more application in annual work plans.

Kelsey and Hearne support a written program in order¹²

1. to ensure careful consideration of what is to be done and why;
2. to have available in written form a statement for general public use;
3. to furnish a guide or straightedge against which to judge all new proposals;
4. to establish objectives toward which progress can be measured and evaluated;
5. to have a means of choosing: (a) the important from the incidental problems; (b) the permanent from temporary changes;
6. to prevent mistaking the means for the end, and to develop both felt and unfelt needs;
7. to give continuity during changes in personnel;
8. to aid in the development of leadership;
9. to avoid waste of time and money and promote general efficiency;
10. to help justify appropriations from public bodies.

VI. Prepare annual plan of work.

1. The annual plan of work is an attempt to design specific educational activities for one year. It is a method for extension workers to inform each other about their plans to meet the needs and objectives of their audience.
2. The annual plan of work corresponds to the curriculum of formal educational institutions and should relate to the long-range program.
3. The annual plan of work must focus on the learner.
4. Each program component or area of emphasis included in the annual plan of work should have
 - a. a situation statement derived from the long-range plan;
 - b. educational objectives identifying the potential learner, subject matter content and the knowledge, skill or attitude to be changed;
 - c. a calendar of learning activities, events and experiences relating to each educational objective;
 - d. specific identification of the extension worker's responsibility and the role other extension workers have in executing the plan;
 - e. the schedule, timing and coordination of human resources to reach objectives;
 - f. a statement of method for evaluation and a proposal for determining if educational objectives are attained.

Each state has a slightly different format for an annual plan of work, but the purpose is the same—to outline a strategy to achieve a given series of objectives. In short, the plan of work designates who will do what, when, where and how.

In many states annual plans of work are combined with the Extension Management Information System. This permits an automatic determination of time spent by extension staff in accomplishing state purposes as well as plan-of-work objectives. This also permits individual extension employees within their planning units to identify the direction of their educational efforts for the coming year and to communicate these programs to others so that responsibility can be shared in implementing these programs.

VII. Implement the plan.

1. This step is the focal point of the program-development process and effects a change in the learner's knowledge, skill or attitude if effectively implemented.
2. Certain tasks are performed during the implementation stage, including the preparation of
 - a. instructional objectives that determine what change in behavior is needed from those participating in the educational activity;
 - b. operational objectives or a teaching plan which plot action to achieve the instructional objectives;
 - c. a correct combination of subject matter material and other resources;
 - d. a procedure to allow the process to be modified during implementation (this is often done through feedback from the learning activity);
 - e. a procedure to reinforce learners as they seek change in knowledge, skills or attitudes;
 - f. a process of evaluating the success of instructional objectives;
 - g. a method to relate the process back to the plan of work.

Plan implementation is associated with the educational activities outlined in the work plan. Those involved must carefully blend subject matter and educational methodology for a proper learning setting. The tasks to be

performed for each activity must be identified, a strategy developed and responsibilities assigned. Monitoring the process through its completion and providing for reinforcement and feedback to the planners are essential.

Instructional objectives are an important part of the implementation plan and serve as a direct refinement of the educational objectives. They specify under what conditions and to what extent learning performance or a behavior change is expected relative to an educational program objective.

A statement of good instructional objectives should

1. state what the clientele (learner) will do, not what the extension professional will do;
2. state what the learner will do as a result, not the subject matter to be treated;
3. specifically state the learning outcome realistically expected within the scope of the activity;
4. include a verb (knows, understands, appreciates, demonstrates, applies) in each objective.

After the instructional objective is determined, a format to carry out the learning activity is developed. This format is called the teaching plan. The teaching plan is a blueprint that identifies steps and procedures, who will be involved and related timing and coordination. If a teaching plan is thoroughly worked out and communicated to all involved in a learning activity, the task of program implementation is nearly fulfilled.

VIII. Evaluation and reporting.

1. A well-planned extension program includes evaluation of all its components.
2. Evaluation must take place as the entire programming process is carried out.
3. Evaluation is useful because
 - a. it lets the extension professional know if identified educational objectives were achieved;
 - b. it provides a report to the public segments that participated in, sponsored or provided resources for the program;
 - c. it helps the extension worker develop new and better objectives and improve the planning process on a continuous basis.

Many extension professionals consider evaluation and reporting the weakest link in the program-development process. Much time is spent planning and implementing, but little time is spent formally evaluating and reporting.

Some reasons for program evaluation include:

1. **To determine what happened.** Extension professionals can find new satisfactions in their jobs when evaluation techniques permit them to more accurately assess the outcomes of an educational program.
2. **To improve future programs.** Careful measurement and analysis can allow the extension staff member to learn methods, techniques and devices that affect the success of programs.
3. **For accountability.** The extension staff member can supply information

in response to the expectations of administrative or legislative bodies using information obtained through program evaluation.

4. **Funding requires it.** Many governmental contracts and agencies require evaluation as a part of a project.

Evaluation may be “formative,” occurring as an educational program progresses; or “summative,” finalizing at the conclusion of an educational event.

Once evaluation results at any level have been determined, they should be reported. It is wise to share the results of any evaluation with learners to reinforce any changes that occurred and to encourage learner participation in other stages of the program-development process.

Reporting is the payoff of an evaluation activity. This information and the subsequent judgments permit extension professionals and interested public persons to make better decisions about educational programs.

Program-Development Concerns

Few persons are program-development experts. Administrators have recognized this, so many states appoint program-development specialists at state and area levels to assist their colleagues in this activity. In-service training to increase professionals’ program-development skills occurs regularly.

Even with these efforts to improve the process, some deficiencies still exist. Oliver, summarizing an ECOP report, outlines some concerns about the extension program-development process.¹³

1. Local people involved in planning don’t represent all groups and interests in the geographic area.
2. Program development is not coordinated with other planning groups and agencies.
3. The educational value of the program-planning process isn’t recognized.
4. A serious gap exists between what we say we believe about program development and what we actually do.
5. Willingness to establish priorities is lacking.
6. A lack of ability to analyze data and determine problems exists.
7. Personal needs, biases and interests dominate in program determination.
8. Plans of work are prepared to meet an organizational requirement and then not used.
9. A major concern in program development is the lack of evaluation of accomplishments and failures.

This list of concerns is not meant to frustrate extension workers; rather, it should help bring the program-development process into sharper focus by revealing common pitfalls that should be avoided.

Reporting

In the late 1960s the Extension Management Information System (EMIS) was devised. This system used computer technology to capture the total extension effort. Time spent by staff was reported according to a set of

purposes. Audience numbers as well as characteristics (race and sex) were accumulated. See Appendix E for part of an example EMIS summary for a state.

EMIS provided useful information for management, but it did not adequately reflect what happened to the audience. For fiscal year 1982 a narrative reporting system was introduced. This system was designed to provide an annual, one-page narrative description of program impact. A second page included keywords for storage and retrieval and cost-effectiveness information. See Appendix F for an example from Arkansas.

The Accountability/Evaluation (A/E) System was introduced in 1983. This system calls for the state to identify specific program thrusts. Planning is to be done over a four-year cycle with annual updates. Established forms provide narrative plans of work and audience contact and accomplishment reports. An affirmative action plan is part of the system. Keywords and the latest computer technology are used to enable extension service to present its program impact to concerned people in a more effective manner. Sample A/E system forms appear in Appendix G.

All Things to All People

There are no short cuts to the development of sound extension programs. It is a resource-consuming activity that takes diligent effort to attain proficiency. In the future extension professionals can expect continuing pressures on their time. New programs are constantly being added and not all are brought about by local pressures. In recent years programs have been mandated by federal legislation and funding for nutrition education, rural development, urban gardening, safety, community resource development, pest management and low-income farming.

Developing a program based on priorities can be a problem. Many field staff say that there is continual pressure to add programs or projects, but no programs are dropped. This makes the extension professional's task very difficult. An agent in the county simply cannot be all things to all people.

It must be recognized and accepted that certain factors have a direct influence on program priorities within any state extension service. The most important of these are

- desires and needs of local committees, organizations and special interest groups;
- financing and requirements of local officials and state legislatures;
- policies and requirements of the land-grant university administering the Cooperative Extension Service;
- policies and requirements of the USDA;
- financing the statutes of Congress.

To maximize results, all those concerned with program development—clientele, agents, specialists and administrators—must participate in the process. If extension professionals execute the program-development process

properly, they will involve individuals and groups while capitalizing on their own knowledge, skills and organizational guidance.

People who are involved in developing programs will support them. By the same token, program implementation will suffer if definite directions and sound objectives have not been set. For these reasons the program-development process must be fully understood and interpreted by extension professionals as they work with local clientele.

Notes

¹*Extension Program Development and Its Relationship to Extension Management Information Systems*. Cooperative Extension Service, Iowa State University, Ames, Iowa, February 1974.

²Houle, Cyril A. *The Design of Education*. San Francisco: Jossey-Bass Publishers, 1972.

³*Handbook for County Extension Councils*. Kansas State University, Cooperative Extension Service Publication 350. Manhattan, Kan.: revised October 1975.

⁴Morris, F. B. *Planning County Agricultural Extension Programs*. Extension Service, USDA, Circular No. 260. Washington, D.C.: 1937.

⁵Boone, E. J., and J. Kincaid. "Historical Perspective of the Programming Function in Extension." *The Cooperative Extension Service*, H. C. Sanders, ed. Englewood Cliffs, N.J.: Prentice Hall, 1966.

⁶Houle, Cyril A. *The Design of Education*. San Francisco: Jossey-Bass Publishers, 1972.

⁷Tyler, Ralph. *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press, 1950.

⁸Corey, Stephen M. *Action Research to Improve School Practices*. New York: Bureau of Publications, Teachers College, Columbia University, 1953.

⁹Leagans, J. Paul. *Journal of Cooperative Extension*, Vol. II, No. 2, Summer 1964.

¹⁰Raudabaugh, J. N. *Mimeo*, 5-31-74. Extension Service, USDA, Washington, D.C., USDA.

¹¹Tyler, Ralph. *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press, 1950.

¹²Kelsey, L. D., and C. C. Hearne. *Cooperative Extension Work*, 2nd ed. Ithaca, New York: Cornell University Press, 1955.

¹³Oliver, Craig. "Toward Better Program Development." *Journal of Extension*, Vol. XV, November/December 1977.



Volunteer Leadership in the Cooperative Extension Service

Leadership is a nebulous term and a hard-to-grasp concept because of the many types of leaders and leadership styles. Historical as well as contemporary examples abound of the political leaders, religious leaders, clan leaders, tribal leaders, financial leaders, military leaders and volunteer leaders that have come and gone, risen and fallen.

Just about everyone has been a leader at one time or another. Think about it. Most children over the age of 10 have been a little league captain, a school officer or the leader of a neighborhood gang.

The types of leaders found in today's society are numerous. Just as varied are the definitions of leadership. Volumes have been written on the subject. Ordway Tead's *The Art of Leadership*, published in 1935, was one of the first popular texts. It is still relevant today and gives an easy-to-follow broad review.

Of all the various types of leaders, perhaps none are as important as volunteer leaders. They have made important contributions and their work is essential to US democracy. Just try to visualize the answer to this question: "What would happen if all volunteer leaders in the United States would go on strike?" The outcome would be nearly utter chaos because there are millions of them and their advice, counsel and hard work are desperately needed in schools, churches, neighborhoods, political parties, fund drives, hospitals and so on. Volunteer leaders are essential to the maintenance, growth, development and stability of a democratic social system. According to Schindler-Rainman and Lippitt's *The Volunteer Community*:

They (volunteer leaders) are to Democracy what circulation of blood is to the organism. They keep Democracy alive. They epitomize freedom and to our society what the Bill of Rights is to the Constitution. . . .¹

Volunteer leaders are also essential to the Cooperative Extension Service. Without them the organization would be ineffective. Some observers feel this is one of the primary reasons extension education efforts have achieved so little in other countries around the world.

A Look at Some Relevant Concepts

Some "building stones" of leadership can increase understanding and comprehension of the word.

Authority implies the power or right to enforce obedience, give commands or make final decisions. Parental authority is an example. Authority also implies a hierarchy, such as in the military. A review of the organization of any business, municipal or state agency will clearly illustrate this chain-of-command concept.

Influence is closely related to authority. It is the power attributed to authority, or to a lesser degree, the access to authority. Examples are assistants or aides to presidents, generals and industry chiefs. Influence resides in special knowledge, reputation, age, position, access to or control of resources or special skills of persuasion.

Power is nearly synonymous with authority, but it is more direct and open. In many cases persons are elected or appointed to positions of authority by assuming power through force, intrigue or wealth. For example, dictators use power in controlling and governing a country.

Responsibility takes on more meaning when it is examined closely in leadership situations. Responsibility implies dependability, resourcefulness, accountability, competence and ability. It is a condition or quality of being trusted and accountable.

Characteristics of Leaders

A list of leader characteristics helps broaden an understanding of leaders and leadership. Characteristics are those special traits, features, peculiarities or qualities that set one individual apart from another. Brunner and his associates, after reviewing available research and literature focusing on characteristics required for leaders, settled on 12 qualifications required to be a leader. These are not necessarily listed in order of importance. They are

1. empathy (the ability to put oneself in another's shoes);
2. consideration of others;
3. enthusiasm;
4. expressiveness;
5. originality;
6. emotional stability;
7. a desire to assume a leadership role;
8. knowledge;
9. intelligence;

10. self confidence;
11. ability to delegate tasks;
12. competency.²

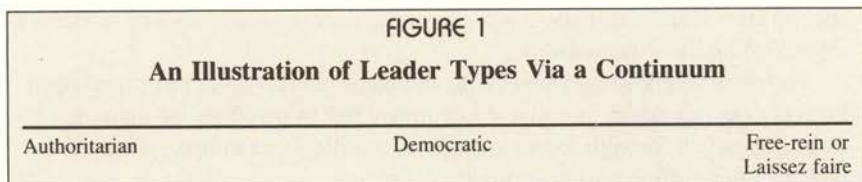
Brunner and his associates noted that competency is one of the key characteristics.

Leader

Leaders come in all shapes, sizes, colors and ages. They seldom just appear on the scene. The old theory “leaders are born, not made” was tossed out several generations ago. Just as each leader is a unique individual, so is each person’s concept of a leader.

Webster does not provide much insight either. The dictionary’s definition of leader is: “(1) a person or thing that leads; directing, commanding or guiding head, as of a group or activity.”³

Some common descriptions of leaders—authoritarian, democratic and free-rein—give a better feel for the term. One method of analyzing these descriptions is to use a continuum that exemplifies the extremes. See Figure 1.



At the authoritarian extreme, the leader is in complete control, issuing orders and demands. At the other extreme is the free-rein leader who allows followers to drift without offering much direction or control.

Leadership

Leadership is a group phenomenon. It cannot occur in a vacuum. At least four elements are required for leadership to exist: (1) a group of people, (2) a leader or leaders, (3) a problem and (4) a possible solution to the problem. Thus, any concept of leadership includes a number of subconcepts.

Tead defines leadership as “the activity of influencing people to cooperate toward some goal which they find desirable.”⁴

Because leaders are made not born, leadership, or more specifically certain skills associated with leadership, can be learned. For example, extension personnel not only occupy leadership positions but also exert a great deal of time and effort expanding and upgrading the leadership skills of those with whom they work. This is one of the key objectives of extension service’s 4-H and youth program.

Role

Role is another relevant concept of leaders and leadership. In drama role means playing a part or acting to portray a particular type of character. Reality is not much different because we usually fill a role in response to how we think people expect us to act or perform in a given situation. Everyone fills different roles at different times. One person can be a parent, law-abiding citizen, church member, business club president and professional person. Such role definitions help categorize behavior.

Robinson and Clifford further refine role into what they describe as behavior bits (pieces of action); style (how roles are played); and scene (a setting where people interact).⁵ This relationship is illustrated in Figure 2.

People learn leadership roles by observation, study and imitation through the process of socialization. Children learn and acquire behavior patterns and styles from many sources. What and from whom they learn determines to a significant degree how they will act as adults and what kind of a person they will become.

A Brief Look at Leadership Theory

Robinson and Clifford carry the definition of leadership a step further than Tead by stating, "Leadership is a learned behavior skill which includes the ability to help others achieve their potential as individuals and team members."⁶

In their extension-oriented review of leadership, Robinson and Clifford analyze three theories: *trait*, *situation* and *role and behavioral style*.

Trait Theory categorizes and analyzes the physical and personality traits of leaders based on the assumption that one trait or a special combination of traits can account for an individual's rise to a leadership position.

This theory largely discounts physical traits, but it does concede that some correlation between height and leadership appears to exist. The psychological traits of intelligence, motivation and aggressiveness and a warm and engaging personality also seem to have some correlation with leadership.

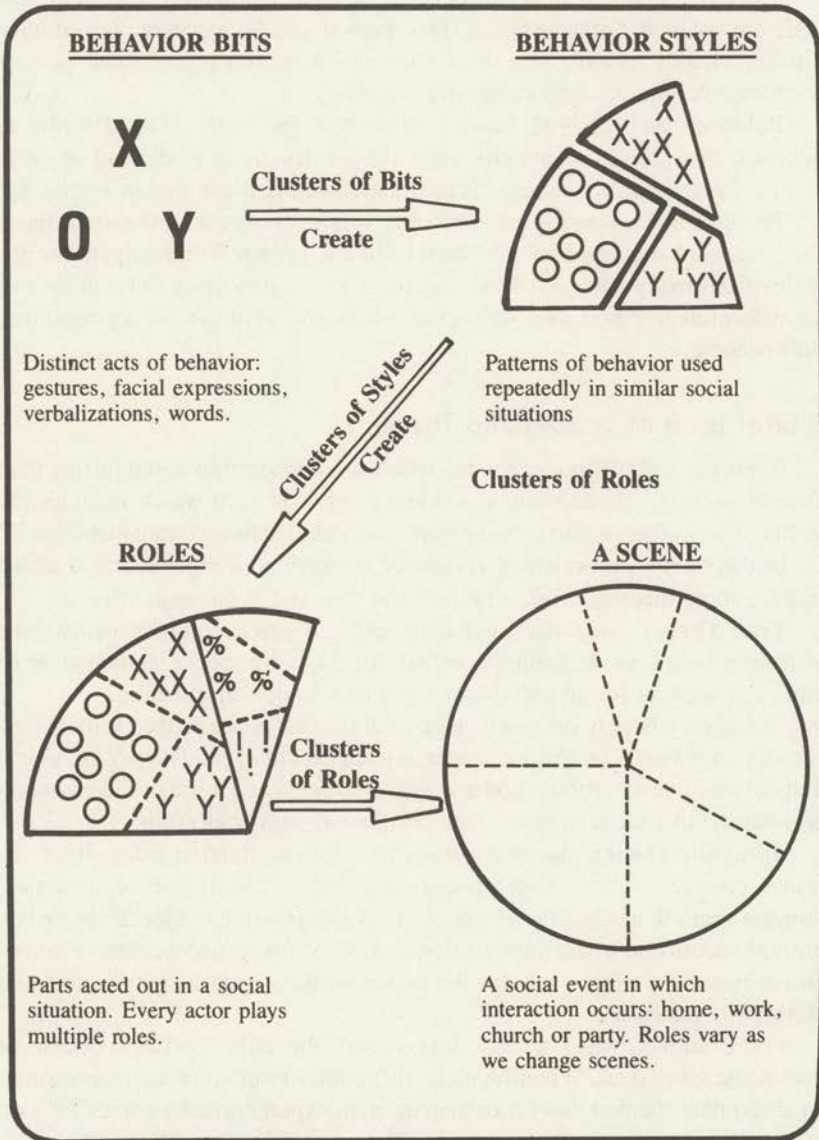
Situation Theory places emphasis on a group situation from which the leader emerges. Those with special knowledge, experience or analytical prowess seem to assume or are asked to assume positions of leadership when turmoil, confusion or feelings of desperation or frustration become evident. Group members either seek out the expert or the expert assumes command almost by consensus.

For example, when an accident occurs the police officer, doctor or paramedic takes over. When financial difficulties crop up in an organization, an accountant, banker, lawyer or management expert normally comes forward and takes charge of the situation. The candidate for office who most convincingly promises to "right the ship" is normally the one elected.

As situations change, leadership might change or be forced to change. Rapid membership turnover, decreasing membership, changes in organizational policy, recurring management or financial problems and other factors all

FIGURE 2

How Scenes, Roles, Behavior Styles and Behavior Bits Relate, from a Behavioral Perspective



Robinson, Jerry W., Jr., and Roy A. Clifford. *Leadership Roles in Community Groups*. University of Illinois, Cooperative Extension Service, North Carolina Regional Publication 36-3. Urbana, Ill.: June 1974.

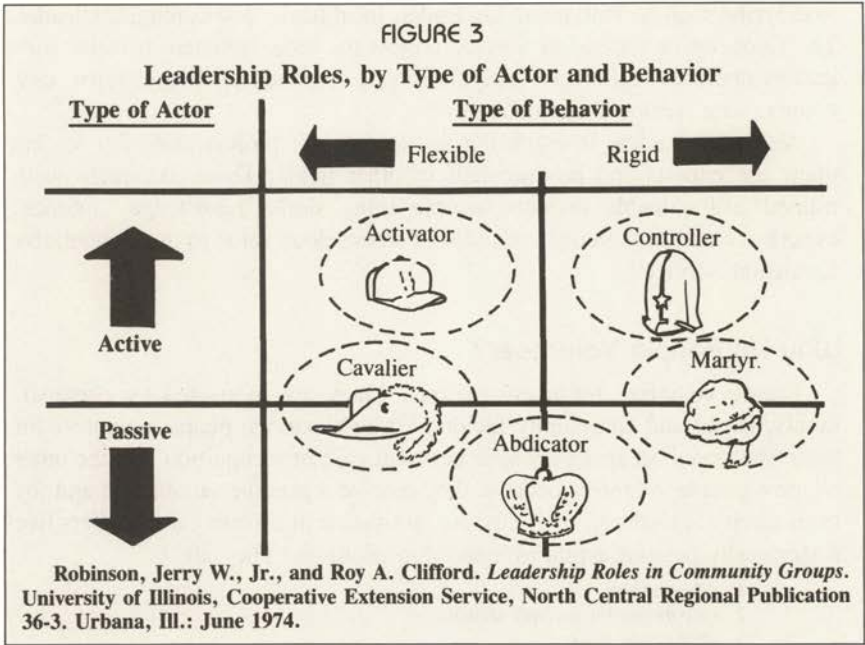
play a part in determining who will lead a group at any particular point in time.

Role and Behavioral Style Theory goes beyond the situation theory. It recognizes humans' capacity to adapt to different situations and their potential for personal growth. Over time sociologists and psychologists observed that even though situations changed the same persons remained in positions of leadership. These leaders, however, changed their behavior (style) to meet the new situation.

Such an approach recognizes that people must adopt different roles to continue in a leadership position. The more roles leaders can play as they develop and expand their behavior, the more flexible they become in their leadership. Success in leadership is limited only by a leader's level of behavioral skills for interacting with persons possessing varied interests, concerns, dedications, backgrounds and socioeconomic levels.

Five Leadership Role Behaviors

Robinson, a sociologist, and Clifford, a management consultant, have combined their theoretical knowledge and practical experience in identifying five distinct leadership roles in terms of behavioral expectations in role-playing situations. They are activator, controller, cavalier, martyr and abdicator. These are illustrated easiest in a matrix, see Figure 3. The left vertical axis indicates the level of activity exhibited by the type of role from active to passive. The horizontal axis indicates the type of behavior from flexible to rigid.



The activator attempts to involve others and contributes to the group's problem-solving ability through active and flexible behavior. The controller plays a power role through active but rigid behavior by telling people what to do as well as how and when. By playing a rather passive part, but using rigid and structural group behavior, the martyr follows rules and regulations and relies on people's feelings of guilt and pity for help out of a tough situation. The cavalier tries to entertain and make pleasure out of work by being extremely permissive and flexible. The abdicator, as the term implies, leaves the group on its own and waits for advice on what to do by following a largely passive role.

What Is a Volunteer Leader?

A May 1971 extension publication stated, “. . . the skills of . . . more than one million volunteers”⁷ supported the work of the Cooperative Extension Service in 1970. A 1974 Census Bureau survey, cited in *Americans Volunteer-1974*, estimated that more than 37 million Americans were volunteers and that the number was increasing.⁸ Obviously, the United States is a volunteer society, but what is a volunteer leader?

Any democratic society needs citizens who exhibit a high level of concern, commitment and involvement in its affairs. A volunteer is anyone who becomes involved in such matters.

It follows that a volunteer leader is any person who occupies a position of leadership in any recognized group, activity or organization and who offers his knowledge, skills and expertise free of charge. Three terms are often used to describe such an individual: lay leader, local leader and community leader. The Cooperative Extension Service prefers the term volunteer because such leaders operate at all levels—neighborhood, community, village, town, city, county, state, regional and national.

Volunteer leaders in extension service are not professionals per se, but many are experts and professionals in other fields. These extremely well-trained and valuable resource people bring skills, knowledge, aptitude, experience and professional attitudes of tremendous value to the Cooperative Extension Service.

Why Do People Volunteer?

People volunteer for many reasons. Many are motivated by personal, family, friend and community factors. On one extreme people volunteer for leadership roles because they seek personal gain or recognition. On the other extreme people volunteer because they receive a genuine satisfaction and joy from serving. Herzberg, in discussing motivation in a job or career, offers five reasons why persons aspire to leadership positions. They are

1. achievement;
2. recognition for accomplishment;
3. challenging work;

4. increased responsibility;
5. growth and development;⁹

The following table shows actual reasons given by volunteer leaders in two surveys.

TABLE 1
Reasons Why People Volunteer

| Reasons | Percent of Responses Year of Survey | |
|--------------------------------|--|------|
| | 1965 | 1974 |
| Wanted to help others | 37 | 53 |
| Had sense of duty | 33 | 32 |
| Enjoy volunteer work itself | 30 | 36 |
| Could not refuse | 6 | 15 |
| Had child in program | 22 | 22 |
| Had nothing else to do | 4 | 4 |
| Hoped would lead to paying job | 3 | 3 |
| Other | 7 | 7 |

Americans Volunteer-1974. Office of Planning and Policy ACTION, Washington, D.C.: 1974.

Assuming positions of leadership makes a significant contribution to a volunteer's psychological health, personal development and self-actualization. Maslow's hierarchy of needs illustrated self-actualization, or finally achieving what one really wants to do or be, as the ultimate in need satisfaction.

Managers of volunteers and leaders of volunteer movements, organizations and agencies often report that one of their most satisfying experiences is helping and watching people grow. Volunteering might better be perceived as a giving and receiving arrangement. Although volunteers give of themselves, they receive in return personal meaning, excitement, self-renewal and identity.

Extension Service Must Have Volunteer Leaders

The Cooperative Extension Service, as well as hundreds of other organizations, cannot efficiently function without volunteers. Just as program development is the key to a successful extension activity, volunteers are the lifeblood of extension service.

An example of the importance of volunteers in extension service follows. It happened in Ohio where several extension home economics program committees expressed the need to expand educational programming to involve hard-to-reach individuals and families, particularly adults and senior citizens.

Cuyahoga County commissioners indicated that others need to invest in Extension programs before the county would increase its participation.

A proposal called "Family Education for Coping with Our Changing World" emerged. It detailed the situation of the county's hard-to-reach groups. Extension's experience with inner-city 4-H, nutrition, education,

media work, leader training, and cooperation with community agencies was cited.

Specific plans for program delivery were spelled out: training agency personnel; forming parenting groups via the libraries; lunch-n-learn sessions with an employee group; instructing the lowest-income homemakers in homemaking skills; and providing training for community organizations and group leaders on "Clothing Reclamation," "Cooking for One or Two," "Money Management," and "Controlling Health Care Costs." The major educational emphasis was to be on the family, and parenting was a priority subject.

Through regular Extension home economics newsletters, volunteers were recruited to receive intensive training in the use of the . . . materials. The volunteers would lead study/discussion groups in local communities.

To add status to the volunteer position, applicants submitted resumes of education and experience and indicated the time they had available and the geographic areas they would serve. The home economics agent and project director interviewed the applicants before they were accepted for training. Of the 35 applicants, 17 were accepted.

The volunteers received 25 hours of training: 16 hours of class study, including group dynamics, and 9 hours of practice in group situations. The Extension office acted as a clearing house for group assignments. Once the volunteers were trained, a publicity campaign was launched. Excellent newspaper coverage, radio and television public service announcements, and a month-long series of agent radio interviews on various aspects brought good response. The volunteers supplemented publicity by contacting organizations in their own communities—libraries, P.T.A.'s, churches, preschool organizations. An exhibit at a radio station "Baby Fair" produced numerous participants.

Ongoing support was essential in the momentum of the project. Volunteers met every two months to share and discuss experiences they encountered with their groups. In 19 months, 217 families completed the 6-week sequence of meetings. A seventh follow-up session helped reinforce the new skills and has encouraged continued use of the concepts, plus involvement in some other Extension programs.

The volunteers averaged 120 hours of service each, including training. And, they have become some of Extension's best spokespeople. A brunch was held in their honor to recognize their efforts.

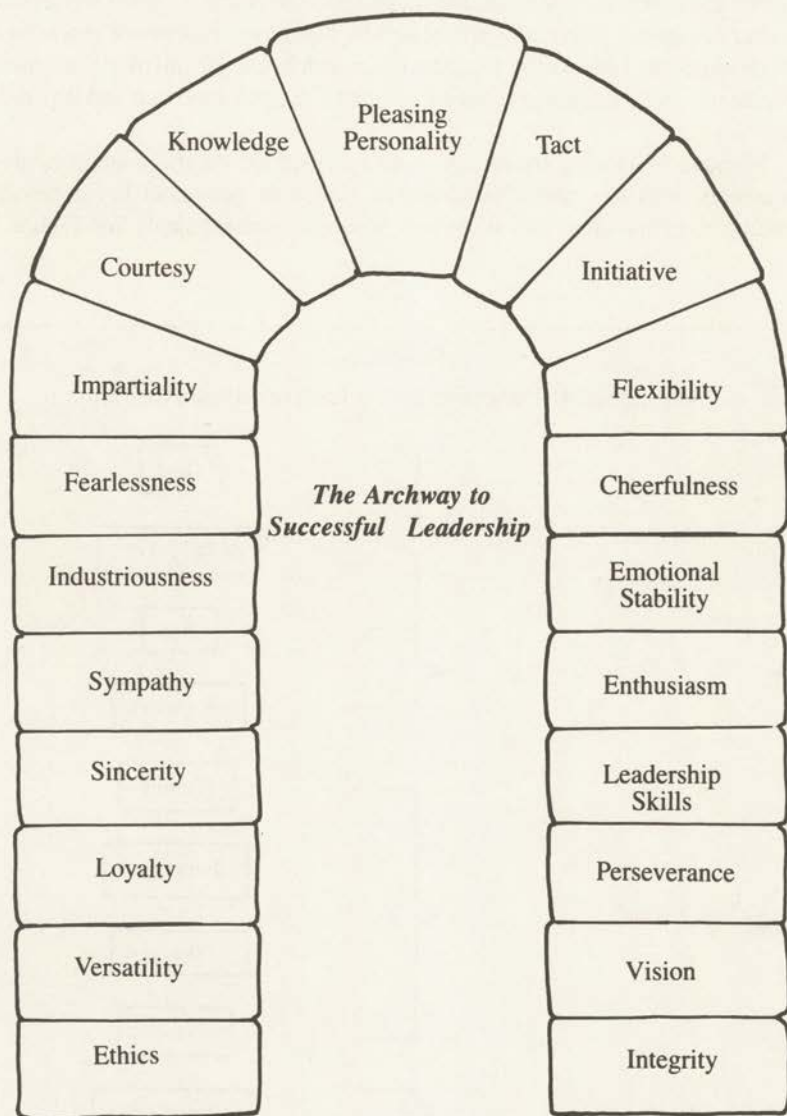
Certificates of appreciation were presented, along with letters of introduction to future employers, which enumerated the nature of the training and the substance of the volunteer service. This was part of an effort to help women better document their background and experience to use when they look for a job or reenter a career field.¹⁰

This example shows a number of essential steps that must be incorporated into any volunteer activity. Any professional who leads and directs volunteers must reinforce those steps.

Qualifications of Volunteer Leaders

Krietlow and associates, in compiling a set of leader characteristics, developed a novel way of presenting leader qualifications. Their phrase, "archway to successful leadership," aptly describes Figure 4, which combines descriptive qualities. Although few individuals possess all these qualities, they should be kept in mind as individuals are considered for leadership positions.

FIGURE 4
Qualifications of Good Leaders

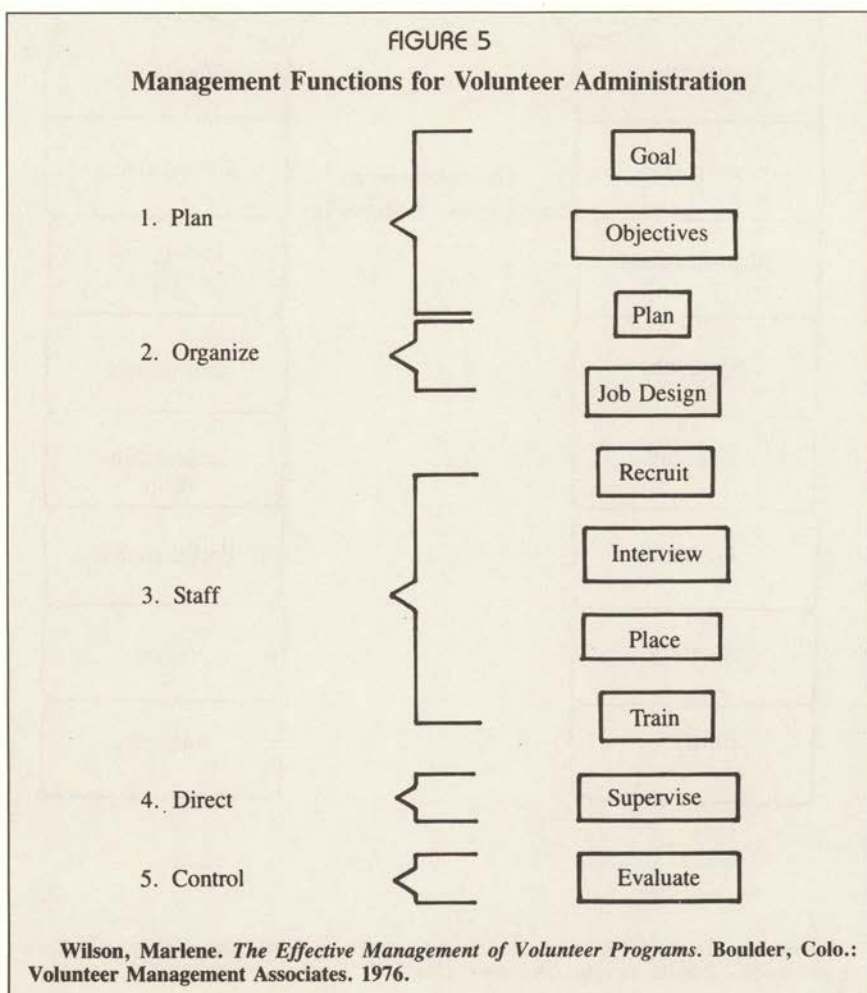


Krietlow, Burton, E.W. Aiton and Andrew Torrence. *Leadership for Action in Rural Communities*. Illinois: Interstate Printers, 1960.

Managing Volunteers

Extension personnel work with volunteers at all levels. The major effort, however, occurs within the community and county. One of the most important lessons any extension agent must learn and put into practice almost immediately after accepting a first assignment is this: *Volunteer leaders are essential to job or program success.* A big part of an extension job involves managing volunteers, so a systematic procedure must be used to approach and supervise their work.

Marlene Wilson, a nationally known consultant on the management of volunteers who has taught hundreds of extension personnel her approach, developed a flow chart that illustrates volunteer management. See Figure 5.



Nearly all the functions described in Wilson's flow chart are included in the example of volunteer work in Cuyahoga County, Ohio. Following such a logical sequence increases the probability of developing and conducting a productive volunteer program.

How To Develop a Volunteer Leadership Program

Planning Ahead is the first of the five management functions noted in Figure 5. It is more than setting objectives and selecting the most suitable alternative. In a preliminary way planning outlines who is going to do what, when, how and where.

Adequate and sound plans must be prepared as the first step in developing a strong volunteer leader program. Fortunately, the broad outlines of a program at the county level, for example, are prepared through the program-development process. Objectives are set and priorities are established by advisory committees. One of those objectives might be "to increase the number of volunteer leaders to strengthen and expand the county 4-H program." Or it might be "to increase skills of existing leaders." The only real difference between the two is the starting point. Both require a plan of action and aim for the same ultimate objective—a stronger 4-H county program—but the action required is different.

Organizing for the Task

Most managers want to jump immediately into the recruitment phase, but that is putting the cart before the horse.

Before volunteers are sought some important questions must be considered:

- What is the job(s) they are to perform?
- What qualifications are required? (age, experience, knowledge, etc.)
- How many hours per week or month might be required?
- Who will contact them?
- Who will guide their efforts?
- Who will train them? For how long?
- What forms of recognition and appreciation will be most acceptable?

How the many things required for a leader development program will be accomplished is plotted during the organizational phase. Thorough coordination and the delegation of responsibility with commensurate authority are required.

Learning to delegate assignments, tasks and responsibility is probably the most difficult aspect of managing volunteers. Extension professionals are almost daily faced with a question of how much to delegate. In the short run assigning certain tasks may actually take more time than actually doing them because of explanation, guidance or possible training required. Delegating, however, is not the turning over of the insignificant and mundane. It is preparing for the future by building confidence and skills in others.

In delegating, Wilson suggests extension personnel should

- define clearly and creatively the responsibilities being delegated to each person;
- delegate segments that make sense and not bits and pieces;
- choose appropriate people for the assignment;
- mutually set goals and standards of performance;
- give accurate and honest feedback;
- support co-workers by sharing knowledge, information and plans;
- give those responsible for important segments a voice in the decision-making body;
- really "let go."¹¹

Communication is the key to coordination. Letting the right hand know what the left hand is doing is critical in managing volunteers. Volunteers cannot do a job and cooperate with all parties involved if they are not informed of what is going on.

Another important element in this organizational step is the development of job descriptions for the various categories of volunteers. Extension faculty, especially those in 4-H, have done a good job of developing job descriptions that can lead to job agreements. An example developed by a Kansas 4-H specialist is presented in Figure 6. Job descriptions do not need to be elaborate. Even short phrases help during recruitment, selection and training. People naturally ask what is expected of them before they agree to accept a volunteer assignment. This adds a business-like ingredient to the situation.

FIGURE 6

Job Agreements Give a Clear Picture of What a 4-H Leader Will do

By Dr. Charles Lang, Extension Specialist, 4-H—Youth Volunteer Staff Development

"Job agreements! First it was job descriptions in the *August Journal* and now job agreements. Now I know you are kidding."

Like job descriptions, job agreements for 4-H leaders have been used in 4-H clubs for years, only they were called other things, such as a list of responsibilities. Agreements are oral or written statements made by new 4-H leaders after they have been recruited.

For example, imagine that you have been recruited to be an entomology leader for eight boys and girls. The person who recruited you gave you some idea of what is wanted and perhaps used some form of a job description.

After you answered yes, then you face the stark reality of what to do next. This is where the agreement, your

plan, is developed.

A job agreement describes in detail what the new leader agrees to do. It gives approximate dates; things to learn, make or do; others who will help; and material needed.

Now imagine that this is written down on a piece of paper. Think how helpful this would be to the community leader who wants this information by enrollment time or how helpful it would be to a group of boys and girls who want to know what will happen in entomology.

So who prepares the job agreement?

The new 4-H leaders with assistance and guidance from the person who recruited them. Here is an example.

NAME, PHONE NUMBER, ADDRESS—Fill in yours.
TITLE—4-H project leader in

entomology.

RESPONSIBLE TO—The community leader, other project leaders in entomology, or person who recruited you.

MY RESPONSIBILITIES—

1. Make samples of projects that members can make in entomology, like an insect collection.

2. Take samples of insect materials and dates to enrollment meeting.

3. Meet with those interested to set final dates for entomology sessions.

4. Schedule 8-10 entomology meetings starting in March. Meetings will include one field trip with Mr. Brown, science teacher, helping with collection of insects; one night time collection trip; using 2 or 3 movies from the school library on insects.

5. Help members get

ready for the fair and attend the fair.

6. Help members fill out project reports and review at 4-H meeting.

TRAINING AND/OR RESOURCES AVAILABLE—Visit with Mr. Brown on how to make insect collections. Get entomology materials from county Extension office.

TIME—Prepare materials for fall enrollment meeting in October. Start entomology program with boys and girls in March and end with the meet-

ing immediately after the fair in August.

SIGNATURE AND DATE

Let's check it out. Does this tell 4-H members or the community leader what we will do in general terms? Does it permit you to adjust once you have the members present?

Hopefully, the answer is "Yes" to both questions and if it is "No" then rewrite the job agreement till the answer is "Yes."

The job description is a tool for leaders to plan what

they will do. It is not a contract, but since those people who volunteer for 4-H are extremely busy people the job agreement, oral or written, has become a valuable tool in scheduling for needed time.

One leader who wrote a job agreement stated, "I can see what I have volunteered to do more clearly."

Being a 4-H leader is like looking at an iceberg. A lot is below the water. The job agreement helps one to figure out how big the iceberg is.

NAME, PHONE, ADDRESS.

TITLE OF JOB AND CLUB/GROUP—The official name of the job.

RESPONSIBLE TO—Others to whom the volunteer will look for help and assistance.

MY RESPONSIBILITIES—A clear list of responsibilities, describing what will be done and when.

TRAINING AND/OR RESOURCES AVAILABLE—Human and material resources available to do the work.

TIME—A statement of the time committed.

SIGNATURE and DATE

Identifying information.

Helps to identify where this job fits in the 4-H program.

Identifies (in order) the person(s) who is available and "on call" to help the volunteer. Also, that is the person the volunteer informs of happenings in relation to the job.

A specific description of responsibilities which states what will be done, for whom, by whom, and when. Limited to 10 items or less.

A specific description of what will be provided, by whom, and when.

The exact date and time is left to the leader and the people he/she will be working with.

Indicates that the person understands. This is not a contract; therefore, it should be changed as the need arises.

Kansas 4-H Journal, Kansas 4-H Foundation, Manhattan, Kansas. October 1980.

Staffing: Recruitment and Selection

Naturally, extension service wants the best person for the job, but a 4-H agent can not just wait for a prospective volunteer to drop into the office and announce, "Here I am, now what?" This sometimes happens, but it is not predictable.

The first step in recruitment is to identify potential leaders. Sociometric techniques developed by sociologists can identify prospective leaders in a community, town or city. Observation is commonly used in extension service, especially by agents who have been in an area for several years and know many people. Other common methods for contacting potential volunteers include asking other volunteer leaders for names and conducting general leader development meetings. On occasion a person seeks out leadership opportunities. Some caution, however, should be exercised in accepting the

offer of such a volunteer until a motivating force can be determined.

The true volunteer is self-selected, so to speak, but at least two other routes are open to the selector—appointing or electing a volunteer to a leadership position. Both are commonly used. The most appropriate method should be dictated by the situation. Sometimes tradition determines the procedure, such as the members of a 4-H club electing their own leaders. The election process, however, is a bit risky. A leader may be selected because of popularity or prestige with insufficient attention given to required qualifications.

Whenever possible, potential leaders should be interviewed so only the best qualified are selected. This does not have to be a formal interview nor solely conducted by extension workers. Selection committees are widely used. The 4-H advisory committee assumes such a function in many counties. Selection criteria need to be established objectively and in a systematic manner. Interviewing is a two-way street. It offers the interviewee an opportunity to make inquiries about the position and job expectations.

People accept leadership positions for a number of reasons—genuine interest, personal gain, prestige, status and community tradition. Bower surveyed 4-H home economics project leaders in Ohio and found volunteer leaders volunteer because

- my responsibility;
- like the subject;
- learn more about the subject;
- gain experience in teaching;
- opportunity to help others;
- desire the training;
- gives self-confidence and poise.¹²

Training of Volunteer Leaders

Training is another important element in the staffing and management of a volunteer leader program. To accept a leadership position and then be turned loose without guidance is frustrating for volunteers. Orientation is crucial. It builds “esprit de corps” and confidence in addition to providing knowledge and skill development required for the particular job. Orientation should be designed to help the volunteer understand the job more fully and become thoroughly familiar with the objectives of the organization.

Each volunteer manager can develop a training program. It need not be elaborate but should meet current needs and concerns as well as set the stage for future development. Schlinder-Rainman and Lippitt, two specialists in the field, suggest at least five phases in developing a sound program. They include

1. pre-service training or training before any work begins;
2. start-up support or assistance in the early weeks of the activity;
3. maintenance-of-effort or regular on-the-job support and training;
4. periodic review and feedback sessions between the volunteer and the manager will become less frequent as the leader “grows” in the assignment;
5. transition training to new or greater responsibility as the volunteer picks

up greater knowledge, skill and confidence and is ready for more responsibility.¹³

Training methods should be varied. Each session must be interesting and challenging without covering too much subject matter at any one time. Four to six training sessions per year should be ample.

An important key to any successful training effort is to meet the needs of the volunteers. Experienced agents will know what some of these are, but a survey of the trainees should be conducted to ensure that all needs are identified. These needs should then be incorporated into a plan of action that can be shared with the volunteers at the initial training session.

The plan should cover

- who is to be trained (by name or by job description);
- topic(s) to be covered;
- how many sessions will be required, along with a tentative schedule showing dates and locations;
- methods to be used at each session;
- who is responsible for the training;
- who will address the various topics to be covered;
- an evaluation procedure to measure progress and to identify strengths and weaknesses of the total training exercise, based on pre-determined objectives.

Any training activity requires a great deal of thought, time, effort and planning.

Supervision

The basic principles and methods of managing professionals are relevant to managing volunteers as well. Working with volunteers is more difficult, however, but it may be one of the most interesting and rewarding aspects of an extension job. Guiding, supervising, giving direction and influencing must be directed toward getting the work done as efficiently and effectively as possible. Motivation and communication are two key elements. Van Dersal, a management expert who has conducted countless workshops and courses on supervision for extension faculty, offers the following guidelines for working with people.

- People must always understand clearly what is expected of them;
- People must have guidance in doing their work;
- Good work should always be recognized;
- Poor work deserves constructive criticism;
- People should be encouraged to improve themselves;
- People should have an opportunity to show they can accept greater responsibility.¹⁴

This last point is especially important in extension work with junior leaders and their adult counterparts in 4-H and youth programs because junior leaders can be considered to be “in training” for future leadership positions.

Evaluation

Evaluating volunteer leaders has been considered only in recent years.

Yet, performance evaluation has always been important in business, industry and education for governing promotion and salary increases. Salary increases are moot in volunteerism; but promotion, certainly in terms of added responsibility, is not. Including evaluation in any ongoing volunteer training program is a necessity.

Understanding Ourselves and Others

All people are unique by the way they think, behave and interact with others. We learn behavior by observing, studying and imitating others. Behavior is organized through the process of matching needs with objectives in different social, cultural, physiological and physical environments. Because of the different intellectual capacities and motivational drives of people, understanding others, even a group of volunteer leaders with similar interests, can be difficult.

Development of Self

Psychologists say that each human being is a different product of heredity and environment. Mental and physiological characteristics, which are set at birth by heredity, cannot be altered. Diverse environmental situations expose no two people to identical ones. All these diverse elements influence and shape a person's concept of "self" as he learns and acquires distinctive characteristics through interaction with parents, siblings, teachers, relatives, peers and others within his own unique environments. This process of development is called socialization, and it occurs over an extended period.

Developmental psychologists feel that the preschool years are most critical. At this age individuals most readily absorb behavioral patterns. Adolescents also find life especially frustrating and stressful when they observe and struggle with conflicting behavioral examples. They often try "role modeling" by adapting their behavior to that of others. Even adults continue to make adjustments in their behavior as they advance through life's various developmental stages. Their adjustments are perhaps less frustrating than those of an adolescent or preschooler because of the experiences they have gained through confrontations of all types over the years.

How Does This Relate to Leadership

A thorough understanding of self-development gives extension workers confidence in their ability to work with leaders. It provides a foundation or basis, however rudimentary, for these professionals to fall back on as they identify, recruit, select, train and reward volunteer leaders.

Understanding others means first understanding yourself. Various self-evaluation instruments can help. One such instrument, "What Type of Leader Are You?" (see Figure 7), can provide insight into how individuals think they behave as leaders.

FIGURE 7

What Type of Leader Are You?

The quiz below can reveal to you in approximate terms the type of leader you naturally tend to be. Some of the questions you'll be able to answer off-hand. A few may require careful thought. But answer all the questions, and answer them as honestly and accurately as possible. When the question asked has no ready answer from your experience, indicate what you believe you *would* do in the situation described.

When you've completed the quiz, go on to the directions for scoring and the analysis that follows.

| | YES | NO |
|---|-------|-------|
| 1. Do you enjoy "running the show"? | _____ | _____ |
| 2. Generally, do you think it's worth the time and effort to explain the reasons for a decision or policy before putting it into effect? | _____ | _____ |
| 3. Do you prefer the administrative end of your leadership (job planning, paperwork, and so on) to supervising or working directly with subordinates? | _____ | _____ |
| 4. A stranger comes into your department and you know he's the new employee hired by one of your assistants. On approaching him, would you first ask his name rather than introduce yourself? | _____ | _____ |
| 5. Do you keep your people up to date on developments affecting the group as a matter of course? | _____ | _____ |
| 6. Do you find that in giving out assignments, you tend to state the goals, and leave the methods to your subordinates? | _____ | _____ |
| 7. Do you think it's good common sense for a leader to keep aloof from his people, because in the long run, familiarity breeds lessened respect? | _____ | _____ |
| 8. Comes time to decide about a group outing. You've heard that the majority prefers to have it on Wednesday, but you're pretty sure Thursday would be better for all concerned. Would you put the question to a vote rather than make the decision yourself? | _____ | _____ |
| 9. With you and your way, would you make running your group a pushbutton affair with personal contacts and communications held to a minimum? | _____ | _____ |
| 10. Do you find it fairly easy to fire someone? | _____ | _____ |
| 11. Do you feel that the friendlier you are with your people, the better you will be able to lead them? | _____ | _____ |
| 12. After considerable time, you dope out the answer to a work problem. You pass along the solution to an assistant who pokes it full of holes. Would you be annoyed that the problem is still unsolved, rather than become angry with the assistant? | _____ | _____ |
| 13. Do you agree that one of the best ways to avoid problems of discipline is to provide adequate punishments for violation of rules? | _____ | _____ |
| 14. Your way of handling a situation is being criticized. Would you try to sell your viewpoint to the group rather than make it clear that, as boss, your decisions are final? | _____ | _____ |
| 15. Do you generally leave it to your subordinates to contact you, as far as informal day-to-day communications are concerned? | _____ | _____ |
| 16. Do you feel that everyone in your group should have a certain amount of personal loyalty to you? | _____ | _____ |
| 17. Do you favor the practice of appointing committees to settle a problem rather than stepping in to decide on it yourself? | _____ | _____ |
| 18. Some experts say differences of opinion within a work group are healthy. Others feel that they indicate basic flaws in group unity. Do you agree with the first view? | _____ | _____ |

YOUR SCORE: To get your score, indicate the number of "Yes" answers you had for the following groups: I—1, 4, 7, 10, 13, 16. II—2, 5, 8, 11, 14, 17. III—3, 6, 9, 12, 15, 18. More "Yes" answers in Group I means you tend to be an autocratic leader, more "Yes" answers in Group II—democratic leader, in Group III—Free-rein leader.

Recognition

It is a good feeling to have someone say "Thanks for a job well done." In many cases this verbal thanks is the only reward volunteers receive. The importance of recognition should not be underestimated. Appreciation should be expressed formally and informally. Letters of thanks, the most common form of expressing appreciation, are always in order. Pins, plaques or certificates can be used. Articles in local papers or announcements over local radio or television stations stating what has been accomplished and by whom are proper. Formal introductions at activities or events and special recognition coffees, luncheons or dinners can express appreciation and offer recognition. One of the best rewards for volunteer leaders is to be asked for advice or consultation in areas of their expertise. Invitations to attend or to be on the program of leader-training sessions are other ways of recognition. Thanks can also be said by asking volunteers to serve as trip sponsors, especially if expenses could be paid.

The best way to show appreciation, however, is still a personal, sincere and heartfelt thank you. Always remember that *satisfaction is the volunteer's main reward because there is no pay check.*

Retention

The turnover, or discontinuance rate, of volunteer leaders is high. In 4-H and youth extension work it approaches the one-third level each year. That means that an entire cadre of volunteer leaders must be identified, recruited, selected and trained every three years. That is just to stand still. What about program expansion and the need to upgrade present leader knowledge and skills?

Some turnover must be expected. People retire from volunteer leadership positions, they move away from the community and other factors enter in. In recent years many women, who are still the primary reservoir for potential volunteers, removed themselves from the volunteer field by joining the paid work force. These factors contribute to the discontinuance rate.

Studies on volunteer leader discontinuance identified several primary factors that influence a decision to step down. A clear-cut list cannot be prepared because situations among and even within organizations are vastly different.

Lack of satisfaction, loss of interest or not enough time are key phrases for discontinuance. They are vague and often serve to cover up the real reasons, such as conflicts between manager and volunteer, lack of support by the manager or organization, menial task assignments, lack of clear-cut responsibility or inadequate training opportunities.

Regardless of the reasons, discontinuance is a serious problem. While the problem will always remain, volunteer leaders will continue to be the life blood of any successful and expanding extension program. A definite, positive correlation exists between retention and the leadership training oppor-

tunities and between program success and the time and effort spent on planning and managing a volunteer leader activity. The Cooperative Extension Service would have a poor chance of surviving without volunteer leaders so it is essential to do the best job possible with and for them.

Notes

¹Schindler-Rainman, Eva, and Ronald Lippitt. *The Volunteer Community*, 2nd ed. NTL Learning Resources Corporation, Fairfax, Virginia, 1975.

²Brunner, Edmund des, et al. *An Overview of Adult Education Research*. Adult Education Association, Chicago, Illinois, 1959.

³*Webster's New World Dictionary of the American Language*, 2nd ed. New York: The World Publishing Co., 1972.

⁴Tead, Ordway. *The Art of Leadership*, 24th printing. New York: McGraw-Hill Book Co., 1935.

^{5,6}Robinson, Jerry W., Jr., and Roy A. Clifford. *Leadership Roles in Community Groups*. University of Illinois, Cooperative Extension Service, North Central Regional Publication 36-3. Urbana, Ill.: June 1974.

⁷*Extension Service, USDA: Functions, Objectives and Responsibilities*. Extension Service, USDA, Washington, D.C., May 1971.

⁸*Americans Volunteer-1974*. Office of Planning and Policy ACTION, Washington, D.C., 1974.

⁹Frederick Herzberg, as quoted in George Litwin and Robert Stringer's *Motivation and Organizational Climate*. Cambridge, Mass.: Harvard University, 1968.

¹⁰Abstracted from Clara Spath and Sally Ebling's "Home Economics Uses Private Funding," *Journal of Extension*, Vol. XVII, July/August, 1979.

¹¹Wilson, Marlene. *The Effective Management of Volunteer Programs*. Volunteer Management Associates, Boulder, Colo., 1976.

¹²Bower, E. M. "A Study of Project Leaders and Non-Project Leaders in the Adult Home Economics Extension Program in Hocking County, Ohio." Unpublished master's thesis, University of Wisconsin, Madison, Wis., 1959.

¹³Schindler-Rainman, Eva and Ronald Lippitt. *The Volunteer Community*, 2nd ed. NTL Learning Resources Corporation, Fairfax, Virginia, 1975.

¹⁴Van Dersal, W. *The Successful Supervisor*, 3rd ed. New York: Harper and Row, 1974.



Delivering Extension Education Programs

Extension education means different things to different people. Therefore, different images are associated with what extension workers are supposed to do and how they are supposed to carry out various assignments.

Once extension workers have acquired the necessary technical knowledge, their principal task is to become familiar with basic educational concepts and to learn how to apply them in practical situations. Beyond this they must become skilled in a wide variety of teaching methods, so they can select the best single one or a combination of several that will get across a particular message to an individual or a group in the most efficient and effective manner possible.

A Concept of Education

Education can be compared to a catalyst that modifies, relates and activates other elements essential to producing change in individuals, groups or organizations. Education's basic purpose is to promote mental growth which leads to behavioral changes. Extension service's ultimate and long-range task is to influence its clientele through education to use the results of scientific technology to improve their quality of life.

At least three elements must be present to induce widespread change. They are

- a body of knowledge;
- a target group of people;
- a delivery system for information.

Webster defines education as "the process of training and developing the knowledge, skill, mind, character, etc., especially for formal schooling;

teaching; training.” An educator is defined by Webster as “a person whose work is to educate others; a teacher.”¹

These narrow definitions cannot be accepted by extension personnel because they (1) do not operate in formal school situations and (2) are not satisfied with just exposing people to a new or different bit of knowledge. Rather, extension workers go one step further and make a serious effort to influence the learner to put the newly acquired knowledge or skill into practice.

A Concept of Teaching

Both teaching and learning are part of the educational process. Narrowly defined, teaching is a process of transmitting information to an individual or group and the directing of the learning process. More fundamentally, it is the implementation of an activity designed to bring about changes based on the needs of those being taught.

Learning is a process that produces change in an individual’s behavior. Such change is usually identified as increased knowledge and skills or modified attitudes and aspirations.

Teaching and learning are interrelated activities. Teaching, however, can occur without learning, and learning can occur outside the realm of a designed and structured teaching situation.

Communication

At the heart of the teaching-learning process is communication or “(1) The act of transmitting; (2) a giving or exchanging of information, signals, or messages by talk, gestures, writing, etc.”² The former of the two definitions by Webster can be rejected in extension service because communication means more than transmitting a piece of information. Of course, messages via radio, television, newspaper, bulletins and similar written material are one-way transmissions, but extension service follows these approaches with other methods. The simplest view of communication is to consider it a process with three parts: a sender of information, a message (content) and a receiver. See Figure 1.

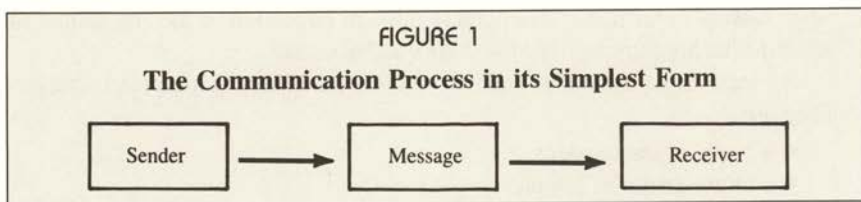
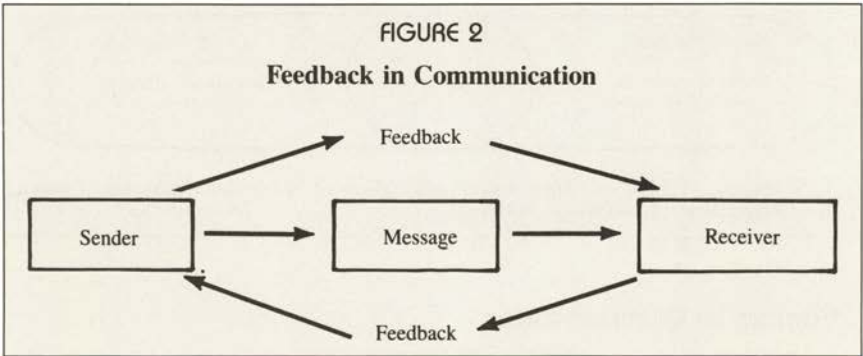
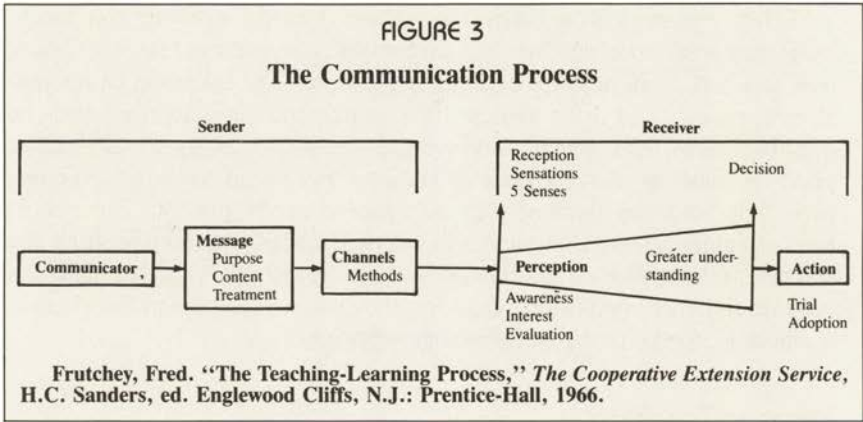


Figure 1 is a model of only transmission. Another dimension must be added to this model to illustrate interaction between the sender and the

receiver. See Figure 2. Through feedback the sender (teacher, agent, etc.) can react to or answer questions posed by the receiver.



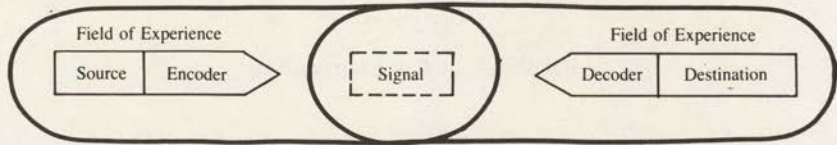
Frutchet has devised a more elaborate model, see Figure 3, that illustrates communication in the extension education process. This incorporates a step that goes beyond the meaning of communication, but it is relevant if the desired results of any extension communication—action and adoption—are considered.



Another model of the communication process adds one more element to the process. See Figure 4. Schramm calls it the "field of experience" and explains that the greater the overlap of the sender and receiver's fields of experiences the more efficient, rapid and complete the communication.

FIGURE 4

Schramm's Model of Communication



Schramm, Wilbur, ed. *The Process and Effects of Mass Communication*. Urbana, Ill.: University of Illinois Press, 1954.

Barriers to Communication

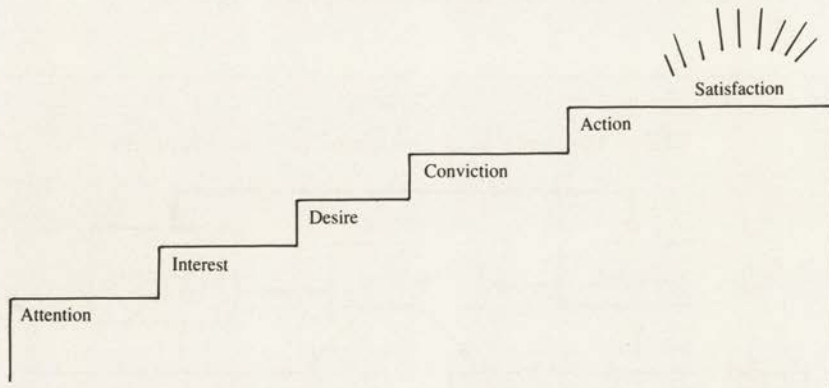
Barriers are inherent in any communication. Misconception is perhaps the greatest barrier. The meaning given to a word or picture is not in the word itself. It is engraved in the mind of the receiver through former conditioning and experience. The receiver may therefore have an entirely different understanding of what the sender believes he is saying. Words—the most common form of communication—are often misunderstood because the sender fails to make them absolutely clear or because some are intended to be obscure.

Other communication barriers are noise, timing, assuming too much, using terms the receiver does not understand, inaccuracy, fear, confusion, boredom, irritation, physical discomfort and so on. The extension professional must be aware of these barriers. In selecting communication methods he must be aware of the strengths and weaknesses of each. A good teacher takes pride in knowing the audience. This does not mean knowing everyone personally but being familiar with their general needs, previous experience, level of subject knowledge, meeting time preferences, choice of meeting site and other relevant information. In extension service this is a tough assignment because audience composition can vary tremendously. But the more informed a sender is, the better he can plan a presentation.

Steps in Teaching

Wilson and Gallup outlined in 1955 the steps involved in extension teaching. These steps are in Figure 5. This model is still useful.

FIGURE 5
Steps in Teaching



Wilson, M.C., and Gladys Gallup. *Extension Teaching Methods*. USDA Extension Service Circular No. 495. Washington, D.C.: August 1955.

In discussing their model, Wilson and Gallup wrote:

In order to bring about the desired changes in the behavior of people, the extension teacher needs to organize activities so that there will be repetition of the desired behavior, each successive repetition building on the one before it. This conscious attention to organization of teaching activities in a sequence greatly increases the efficiency of learning.³

The first step in the teaching process is to get the attention of the learner. A simple illustration demonstrates this: A farmer asked his neighbor why he always carried a big club when he was working in the field with his mules. The reply, "Well, to get their attention I first hit them over the head, then I tell them what to do." Getting someone's attention is necessary before interest can be aroused.

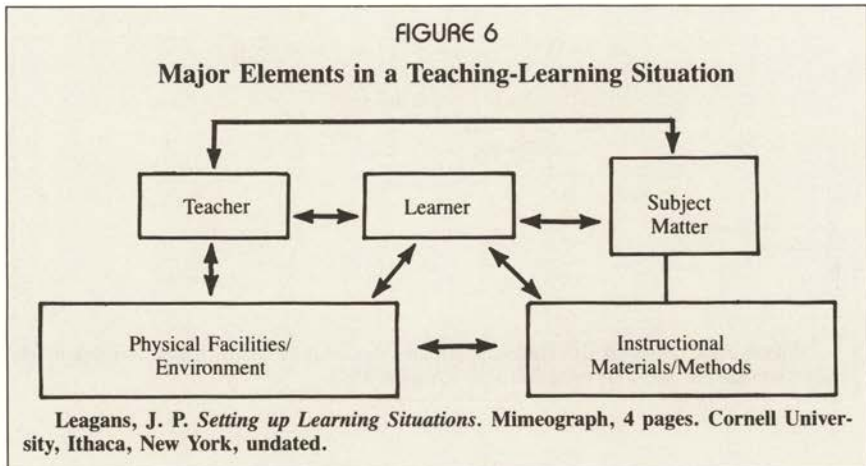
Extension educators stimulate interest by appealing to the learner's basic needs and concerns. They do this by showing how a new skill or bit of knowledge will contribute to the learner's welfare. To create a strong desire for additional information about the issue under consideration, the teacher must show how this new information applies directly to the learner's situation.

The next step is to convince the learner to act by outlining the action required as well as the potential consequences. Until this time no direct physical action is taken by the learner, and no investment of supplies, money or effort (beyond thinking energy and time) are required. The key is to convert interest into action. Unless this occurs, the teaching effort has been a fruitless waste of time for both the teacher and the learner.

The end product of any extension teaching effort is individual satisfaction that results from putting a new idea into practice. Follow-up by the teacher and the individual is required at this level. Evaluation should determine how

useful, profitable and difficult the action was and what the next step should be.

At least five factors influence the teaching-learning situation. Leagans has developed these to show their interrelationship. See Figure 6.



Extension workers must be aware of these five elements so they can use them to enhance the effectiveness of the teaching-learning situation. The main element, of course, is the learner.

Developing Objectives for Learning

Ralph Tyler identified three general sources of learning objectives—the learner, contemporary life and the society in which the learner lives and the subject matter field.⁴

Considerable controversy exists over the question whether adults learn differently than youth. Kidd, who explored these differences in some detail, noted that

we . . . illustrate this whole problem by selecting four of many ways in which an adult learner may have a different perception of understanding about what he is learning than a youth has, or the ways in which he feels differently about it: - there is no 'correct' answer; 'correctness' (is) associated with traditions or religion; solutions have effects (on others); and expectations of the 'student' and 'teacher' may be different.⁵

Kidd went on to note that changes in roles, maturation, experience and time all effect the adult learner differently from children or adolescents.⁶

The How, Why and What of Adult Learning

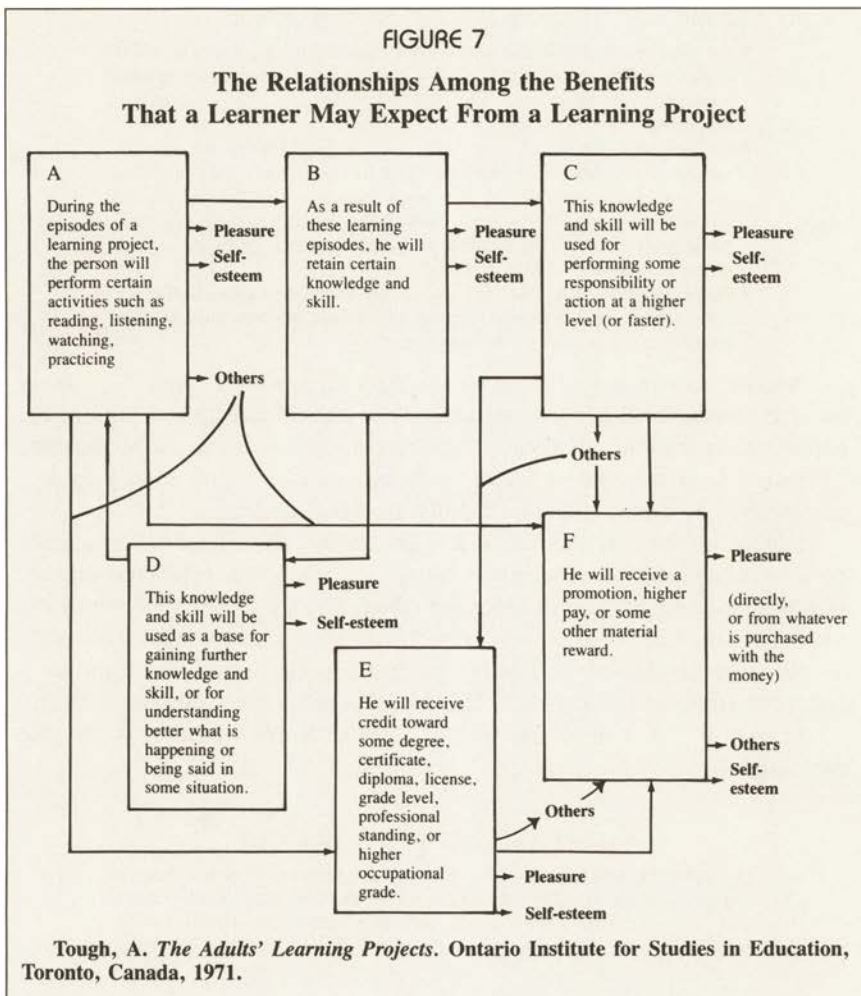
Tough, writing about the adult learner, noted that “. . . about 70 percent of all learning projects are planned by the learner himself, who seeks help and

subject matter from a variety of acquaintances, experts and printed resources.¹⁷

Tough, in his continuing research, is concerned with how adults learn as well as why and what they learn. He wrote:

Almost everyone undertakes at least one or two major learning efforts a year, and some individuals undertake as many as 15 or 20 . . . It is common for a man or woman to spend 700 hours a year at learning a project.⁸

He found that most learners organize their learning efforts around “projects,” which he defined as a series of related episodes guided by motivation to gain and retain some knowledge or skill or to produce some lasting change. Furthermore, he found that learners anticipate desired outcomes and benefits for their efforts. As a result of his research, Tough has developed a graph presenting the relationship and expected outcomes of how and why adults learn. See Figure 7.



At least four facts about adult learning must be kept foremost in the minds of extension personnel as they plan educational activities.

- Adults learn best and most rapidly when they have a strong desire to learn;
- Adults learn best when they have clear goals to guide their learning activities;
- Adults learn best when they put forth an effort;
- Adults learn best when they receive immediate satisfaction and can quickly put into practice what they have learned.

Houle researched why adults continue to engage in learning activities. He found adult learners fell into three categories. He cautioned, "These are not pure types; the best way to represent them pictorially would be the circles which overlap at the edges. But the central emphasis of each subgroup is clearly discernible."⁹ The three types of learners include

- the *goal-oriented* who use education for accomplishing fairly clear-cut objectives. These individuals usually did not make any real start on their continuing education until their middle twenties and after - sometimes much later.
- the *activity-oriented* who take part because they find in the circumstances of the learning a meaning which has no necessary connection - and often no connection at all - with the content or the announced purpose of the activity. These individuals also begin their sustained participation in adult education at the point when their problems or their needs become sufficiently pressing.
- the *learning-oriented* who seek knowledge for its own sake. Unlike the other types, most learning-oriented adults have become engrossed in learning as long as they can remember.¹⁶

Another recognized adult education theorist, Knowles, said, ". . . as an individual matures, his need and capacity to be self-directing, to utilize his experience in learning, to identify his own readiness to learn, and to organize his learning around like problems, increases steadily from infancy to pre-adolescence, and then increases rapidly during adolescence."¹¹

Education through extension service cannot be labeled as a science because it lacks the main elements making up a true science. It is recognized, however, as a branch of adult education which is today's most rapidly growing segment in the field of education in the United States and perhaps the world.

Research conducted by Findlay produced some results that illustrate a conceptual model of education.¹² This model is called the "Nature and Theory of Learning." A companion design, "Models for Teaching," is also presented.

NATURE AND THEORY OF LEARNING¹³

A consideration of elements central to the learning process; theories pertaining to the learning mechanism within the individual; and the major processes which influence learning, including such things as conditioning, reinforcement, imitation and observation, and the sub-summation principle.

| <u>PRIMARY CONCEPTS</u> | <u>DELINEATION</u> | <u>SUBCONCEPTS</u> |
|-------------------------|---|--|
| Learning | Modification of behavior as a result of conditions in the environment which have produced relatively permanent changes in the central nervous system. | Performance Achievement Retention Transfer of Learning Need |
| Learning Process | A process through which certain behavioral changes are achieved. | Attention Interest Participation Motivation Feedback Satisfaction Evaluation |
| Learning Theory | A set of inferential propositions which explain the learning process. | Connectionism in learning Conditioning in learning Functionalism |

MODELS FOR TEACHING¹⁴

Delineation: A consideration of models for teaching factual information, concept learning, problem-solving, creativity, skills, attitudes, and personality integration.

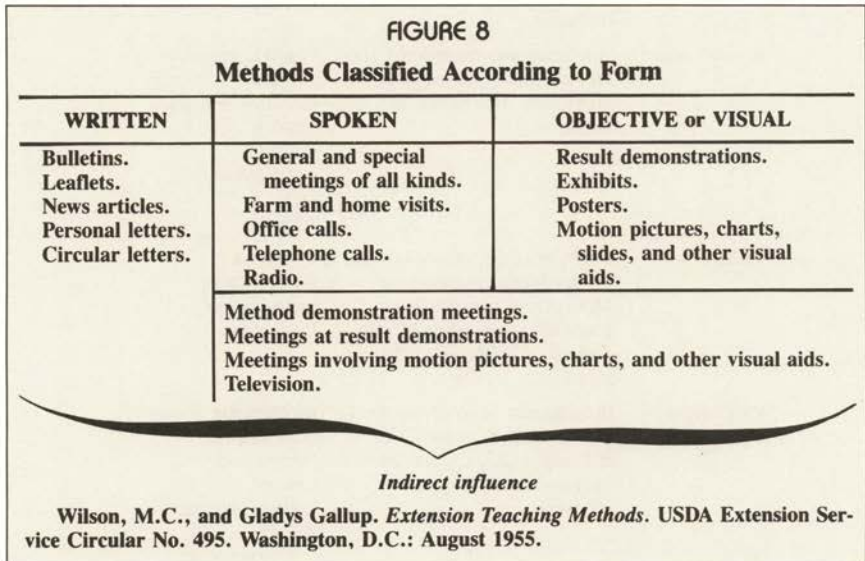
| <u>PRIMARY CONCEPTS</u> | <u>DELINEATION</u> | <u>SUBCONCEPTS</u> |
|-------------------------|---|---|
| Problem-Solving | Characterized by a conscious, deliberate striving for a needed answer, conclusion or solution. Involves movement toward a goal resulting from a learner's recognizing his experiences useful in overcoming obstacles. | Convergent Thinking Divergent Thinking Transfer of Learning Decision making |
| Reinforcement | Any stimulus which when presented or removed increases the probability of response in a reinforcer. | Positive reinforcement Negative reinforcement Reward Need reduction Drive Approval |
| Creativity | Capacity of persons to produce compositions, products, or ideas of any sort which are essentially new or novel, and previously unknown to the producer. | Cognition Stimulation Organization Evaluation |
| Programmed Learning | Presentation of small amounts of information, stimulating responses, and immediate feedback on responses. | Involvement Feedback Performance Linear Programming Branch Programming |

| | | |
|--------------------|--|--|
| Inductive Teaching | Beginning with specific situations and developing conclusions or general principles. | Observation Relationships Opinion Formation Generalization |
| Deductive Teaching | Beginning with general principles and proceeding to specific or working situations. | Discrimination Organization Deduction |

Readers wanting to expand their study of concepts can review the Leagans, Copeland and Kaiser publication, *Selecting Concepts from Educational Psychology and Adult Education for Extension and Continuing Educators*, and the final report of the National Extension Education Curriculum Development Seminar prepared by a group of extension educators. The seminar report represents a decade of study, discussion and editing. It expands on the work prepared by Leagans, et al. The report, *The Concept Approach to Programming in Adult Education With Special Application to Extension Education*, was published in September 1974 by Extension Service, USDA, and distributed by the National Technical Information Service of the U.S. Department of Commerce.

An Analysis of an Extension Methodology

Wilson and Gallup classified extension teaching methods more than 25 years ago. Their classification has been criticized because of its inclusive nature, but simplicity and logic are in its favor. Wilson and Gallup analyzed the various methods according to form and according to use. All methods are included in both classes. Form divides methods into three broad categories—written, spoken and visual. See Figure 8.



They acknowledge that considerable information is disseminated without the teacher or, in this instance, the extension worker being involved. They label situations such as this "indirect influence." Up to 20 percent of new ideas and practices adopted can be attributed to this type of information dissemination.¹⁵

The spoken and visual forms could be combined under the label "audiovisuals" because sight and sound are used in combination to convey the message. The categories according to use are individual or one-on-one contacts, group contacts and contacts via mass media. This classification is based on the nature and number of contacts. See Figure 9.

FIGURE 9
Methods Classified According to Use

| INDIVIDUAL CONTACTS | GROUP CONTACTS | MASS CONTACTS |
|--|---|---|
| <p>Farm and home visits. Office calls. Telephone calls. Personal letters. Result demonstrations.</p> | <p>Method demonstration meetings. Leader training meetings. Lecture meetings. Conferences and discussion meetings. Meetings at result demonstrations. Tours. Schools. Miscellaneous meetings.</p> | <p>Bulletins. Leaflets. News stories. Circular letters. Radio. Television. Exhibits. Posters.</p> |

Indirect influence

Wilson, M.C., and Gladys Gallup. *Extension Teaching Methods*. USDA Extension Service Circular No. 495. Washington, D.C.: August 1955.

Bergevin, et al, do not agree with the concept of method put forth by Wilson and Gallup. They define method as

. . . an established or systematic order for performing any act or conducting any operation. The relationship established by an educational institution with a group of participants for the purpose of systematically diffusing knowledge among them. Some methods of adult education are correspondence study, the coordinated course and community development.¹⁶

According to this definition, extension education as an activity of the institution Cooperative Extension Service would be defined as a method.

Bergevin, et al, use the terms *technique*, *subtechniques* and *educational aids* to explain their logic.

FOURTEEN EDUCATIONAL TECHNIQUES¹⁷

| | |
|------------------|-----------------------------|
| Colloquy | Panel |
| Committee | Quiet Meeting |
| Demonstration | Role Playing |
| Field Trip | Seminar |
| Forum | Speech |
| Group Discussion | Symposium (Ancient Concept) |
| Interview | Symposium (Modern Concept) |

SIX SUBTECHNIQUES

| | |
|------------------------|--------------------------------|
| Audience Reaction Team | Buzz Session |
| Idea Inventory | Listening and Observing Groups |
| Question Period | Screening Panel |

SOME EDUCATIONAL AIDS

| | |
|-------------------------|------------------------------|
| Annotated Reading Lists | Case Histories |
| Exhibits | Films, Filmstrips and Slides |
| Information Briefs | |

Verner tries to make a distinction between *method* and *technique*. He agrees with Bergevin in part.

Method may be described as the relationship which exists between the learner, the knowledge, and the institution which has the knowledge to diffuse in order to bring about changes in attitude and behavior.¹⁸

But he adds:

Once the method has been determined, a second stage in the diffusion process comes into play . . . The agent may employ a wide variety of established procedures or invent new ones that in one circumstance or another prove useful in furthering learning. These processes are the techniques of adult education.

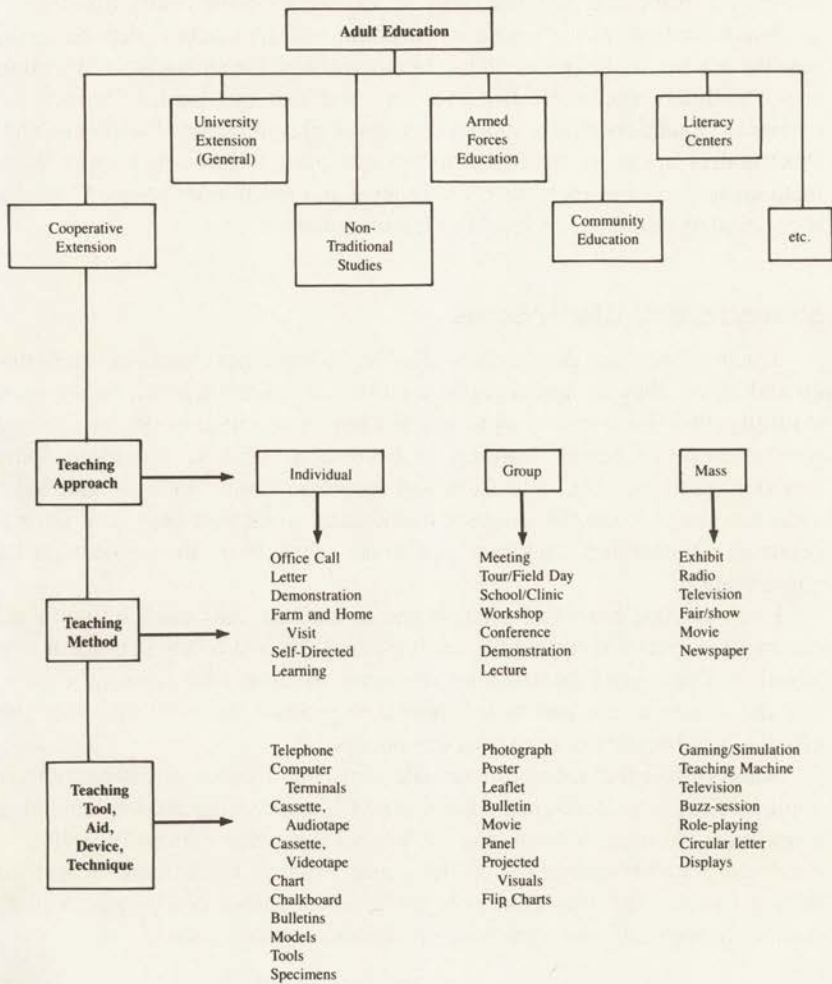
Not all techniques can be used appropriately with all methods but some are useful with many methods . . . an agency using discussion (a method) would use group discussion (the technique) . . .¹⁹

Such narrow and distinct definitions are fine for theoreticians or academicians. It is easy for them to classify recent developments such as closed circuit television, videotape machines, cassette audiotapes, self-teaching machines, multimedia systems consoles, language labs, simulations and gaming, computer assisted instruction, learning center systems and amplified telephone systems. This terminology, however, presents a challenge for extension practitioners.

Realizing that no classification would be acceptable to everyone, the authors of this book have developed a hybrid approach. Figure 10 indicates that the Cooperative Extension Service can be compared with other types of informal, out-of-school education. This illustration retains Wilson and Gallup's individual, group and mass contact ideas, but it uses the term *teaching approach* to describe how extension service interacts with its cooperators. Such a distinction permits latitude in developing a more meaningful hierarchy.

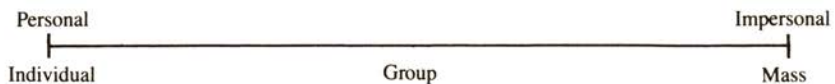
FIGURE 10

A Methodological Classification of Extension Education



Compiled by the authors Warren Prawl, Roger Medlin and John Gross

Another way of looking at the approaches presented is to view them on a continuum from personal (individual) to impersonal (mass media) contact. These approaches are not unique to extension service because they are common and universal in the teacher-learner arena.



Teaching method, techniques, aids and other similar terms are often used interchangeably; most dictionaries make virtually no distinction between them. The authors, however, agree on this definition: "A technique is a refinement of method with the range of techniques being nearly limitless."

Many methods can often be listed under two approaches, depending on how the teacher wishes to use them. In other words, the author's classification is not mutually exclusive. But keep in mind that this book is written for extension practitioners and supervisors, not highly theoretical academicians. Practitioners are more interested in the question, "How can I apply these methods and tools to increase my skill level and reach more people?" than a sophisticated discourse on teaching-learning theory.

Strengths and Weaknesses

Teaching tools and devices are aids. They complement, enhance, strengthen and assist; they do not serve as a substitute for the teacher. When used skillfully, they are a real asset to any teaching-learning episode. When used poorly, they can hinder learning or become a liability. Too often some methods (such as tours, television and movies) or aids (such as slide sets, videotapes or photographs) are used to entertain, to fill time or to keep a group occupied. Sometimes they are not even relevant to the subject under consideration.

Every method has its advantages and limitations. Just as each tool or aid can make a special contribution, each method can add a new ingredient to a situation. The task of the extension worker is to know what method or aid to use and when, where and how to use it to produce the most effective and efficient teaching-learning experience possible.

Some people feel more comfortable using one method or technique over another. They have developed special expertise at planning and implementing tours and field trips, for example. Others have become extremely skillful at conducting radio interviews or designing posters to illustrate a method demonstration. The real extension professional knows how to use a large number of methods and continually practices to improve them.

Adoption Process

Sanders and associates²⁰ did a good job of reviewing the more traditional teaching methods and techniques employed by extension workers. Hadley Read, a long-time extension information specialist, editor and consultant, wrote another fine text, *Communication: Methods for All Media*,²¹ which is more current. Numerous other textbooks are available. In addition, many extension bulletins prepared over the years describe the purpose, use and preparation of tools, devices and materials in great detail.

Because extension workers are the catalyst, organizer and practitioner (the change agent, in other words), they must use the illustrations and models

presented in this chapter to assist with classifying the concepts involved. Each has something to contribute. For example, the major elements involved in a teaching-learning situation, presented in Figure 6, can serve as a check list for preparing teaching assignments.

The “steps in teaching,” mentioned earlier in the chapter, have a sequel called “steps in the adoption process.” Lionberger, Rogers²² and others have spent years studying and researching this process, especially as it relates to extension service and its large corps of change agents. Hundreds of research projects have been conducted around the world in an effort to determine why and how people accept new ideas and practices.

The *why* can be stated quickly and simply—to improve a person’s position in life. The *how* is another matter because it involves dozens of variables that an individual analyzes before making a decision.

Lionberger identified the steps in the adoption process as

1. **awareness** - when an individual is first exposed to a new idea, practice or product;
2. **interest** - when an individual begins to actively seek detailed information about the idea to determine its possible usefulness and applicability;
3. **evaluation** - when an individual studies and analyzes the acquired information to see how it might fit his situation;
4. **trial** - when an individual puts the new information to test; and
5. **adoption** - when an individual integrates the new idea, practice or product in an ongoing operation.²³

At any step during the adoption process the potential adopter may reject the new idea, practice or product being advocated.

The similarity of these two processes is obvious. But the final phase in “steps in teaching” results in action by the learner. In “steps in the adoption process,” the final result is adoption, which demands some physical activity must take place. This is not necessarily so in the action phase of the teaching-learning process. For example, an individual may learn a skill (such as typing in high school) but never put it into practice.

Notes

¹⁻²Webster’s *New World Dictionary of the American Language*, 2nd College Edition. New York: World Publishing Co., 1972.

³Wilson, M.C., and Gladys Gallup. *Extension Teaching Methods*. USDA Extension Service Circular No. 495. Washington, D.C.: August 1955.

⁴Tyler, Ralph. *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press, 1950.

⁵⁻⁶Kidd, J. R. *How Adults Learn*. New York: Association Press, 1973. (This is a completely

rewritten, revised and updated edition of Kidd's 1959 text of the same title.)

⁷⁻⁸Tough, A. *The Adults' Learning Projects*. Toronto, Canada: Ontario Institute for Studies in Education, 1971.

⁹⁻¹⁰Houle, Cyril. *The Inquiring Mind*. Madison, Wis.: University of Wisconsin Press, 1961.

¹¹Knowles, Malcolm. *The Adult Learner: A Neglected Species*. Houston, Texas: Gulf Publishing Co., 1973.

¹²⁻¹⁴Findlay, E. Weldon. "Curriculum Development for Professional Leaders in Extension Education." Unpublished Ph.D. dissertation, Cornell University, Ithaca, N.Y., 1969.

¹⁵Wilson, M.C., and Gladys Gallup. *Extension Teaching Methods*. USDA Extension Service Circular No. 495. Washington, D.C.: August 1955.

¹⁶⁻¹⁷Bergevin, Paul, Dwight Morris and Robert Smith. *Adult Education Procedures*. Greenwich, Conn.: The Seabury Press, 1963.

¹⁸⁻¹⁹Verner, Coolie. "Methods and Techniques." *An Overview of Adult Education Research*. Chicago, Ill.: Adult Education Association, 1959.

²⁰Sanders, H.C., ed. *The Cooperative Extension Service*. Englewood Cliffs, New Jersey: Prentice Hall, 1966.

²¹Read, Hadley. *Communication: Methods for All Media*. Urbana, Ill.: University of Illinois Press, 1972.

²²Four useful references that best summarize the field:

Axinn, George, and Sudhaker, Thorat. *Modernizing World Agriculture*. New York: Preger Press, 1972.

Lionberger, H. *Adoption of New Ideas and Practices*. Ames, Iowa: Iowa State University Press, 1960.

Rogers, Everett M., and F. Floyd Shoemaker. *Communication of Innovations: A Cross Cultural Approach*, 2nd edition. New York: The Free Press, 1971.

Lionberger, H., and P. Gwin. *Communication Strategies*. Danville, Ill.: Interstate Publishers, 1982.

²³Lionberger, H., and Cheng. *Agriculture and Community of Development Extension in Missouri*. Missouri Agricultural Experiment Station Research Bulletin 1041. Columbia, Mo.: June 1982.



Cooperative Extension Service in the 1890 Land-Grant Institutions and Tuskegee Institute

Thirty years after Thomas Monroe Campbell was appointed in 1906 the first black county agent by the USDA, he wrote:

The Negro farmer must have the extension service; must be in a position to secure cheaper money on longer terms, with which to buy, operate and improve his farm, and have a better guarantee of adequate civil protection. He needs a better home, and labor saving devices in that home, improved livestock, and labor and time saving machinery on his farm . . . (a service) so organized to penetrate the most backward and remote section of the South. This, then, is the great task of all agencies designed to elevate rural Negro people to the established American standards of living.¹

Many of these same problems still face the black farmer and his family as well as other low-income, limited-resource and hard-to-reach rural people in the 1980s. Other minority farm and urban groups also require similar educational assistance if they are to become more useful and productive citizens. The Cooperative Extension Service, as a tax-supported and public institution, is morally and legally bound to do its share in providing the educational segment of these urgently required services.

Relatively speaking, tremendous strides have been made in the last decade to narrow the gap between the economic status of the black farmer and that of the white, middle-class farmer who has been the main beneficiary of extension services. The gap is still very wide, however. A historical review of the past century reveals that special efforts were made in the past 10 to 15

years to improve the situation of black and other minority farmers and homemakers.

Historical Relevancy

Extension service in the United States grew out of a unique historical situation characterized by the combination of two great forces. These were the enormous productive capacities of the natural land and human resources and the problem-solving approach of the educational system.

Although the Morrill Act of 1862 created the teaching arm of the land-grant institutions, the Hatch Act of 1887 strengthened this research arm, and the Smith-Lever Act of 1914 unified and expanded the institutions' outreach (extension education) capabilities, the implementation of this legislation by-passed a large segment of the U.S. population—the poor farm families, especially in the South, which desperately needed such information and assistance.

Agriculture in the Deep South at the Turn of the Century

Agriculture in the Deep South at the turn of the century was not as productive, profitable or efficient as that in the northern states. The monocropping system of cotton had its ups and downs. The Civil War shattered the economy until the 1880s. Then came the boll weevil infestation of the late 1890s that spread eastward from Texas.

One agricultural historian described the situation and the difficulties experienced by tenant farmers and sharecroppers as follows.

Agricultural methods were poor, characterized by one-horse farming, shallow plowing, inadequate seed-bed preparation, dwindling humus content, and defective drainage. The soil lacked those moisture retention qualities desirable during droughts and it washed badly after heavy rains. Livestock raising was in no more than its infancy, due partly to the failure of southern farmers to produce good pastures. Instead, for livestock food, they tended to rely on fodder and ear corn, expensive commodities that caused many farmers to try to operate with too few work animals and with too much hand labor. Meanwhile, the shortage of natural manures forced southern landowners to make large outlays for commercial fertilizers in vain efforts to maintain production levels and gross income.²

The 1909 USDA *Yearbook* noted another complicating factor.

The credit system . . . might have been a necessary evil 40 years ago but it prospered and became dominant, oppressive, and insolent . . . It substituted involuntary for voluntary servitude; ownership by agreement and poverty by contract under fear of the sheriff for the ownership of birthright and a government by proprietary right.³

Again, this was a fate suffered more by the black tenant farmer and sharecropper than their white counterpart.

Extension Work for Black Farmers Moved Slowly

Knapp perfected the demonstration technique between 1885 and 1895 in

southwestern Louisiana where he achieved considerable success in introducing improved methods of producing rice. He brought this technique to Terrell, Texas, after the USDA asked him to combat the boll weevil infestation. Knapp's farmer-demonstrators, however, were largely white landowners who had the most to gain and could afford the risk that surrounds the acceptance of any new innovation. Knapp opposed naming Negro agents because he feared southern prejudice. He once wrote to a colleague, "Colored Negro agents cannot work except in strictly Negro communities, but the typical southern white man whom we employ will of his own volition carry on a large amount of work among the colored people."⁴ Mercier estimated that Knapp's first agents spent 25 percent of their time working with Negroes.⁵

Year to year increases in USDA appropriations made it possible for Knapp to spread his demonstration work to the states east of Texas. At first, agents were employed for only the planting and growing seasons. On Nov. 12, 1906, the first white agent, W. C. Stallings, received a full-time appointment in Smith County, Texas. Thereafter, agents began to offer suggestions for improving crops and, eventually, livestock husbandry.

While Knapp, through the Bureau of Plant Industry, was appointing new agents in Texas and western Louisiana, another independent extension movement was under way at Tuskegee Institute in Alabama under the able and ever-prodding leadership of Booker T. Washington and George Washington Carver.

Knapp's reservations were eventually overcome as Tuskegee Institute became the first black institution to cooperate with the USDA in Campbell's joint appointment in November 1906. Hampton Institute in Virginia was not far behind. Just a few days later J. B. Pierce also received a joint appointment to work with black farmers. In fact, Pierce was the first agent in Virginia. J. A. Booker was appointed in 1907 to work in the black community of Mound Bryon, Miss. In tracing this history, Scott noted:

By 1912, there were thirty-two Negro demonstration agents working under Knapp's* direction. As early as May of that year, some thirty-five hundred Negro farmers were enrolled as demonstrators directed by Negro agents, and it was estimated that from ten to fifteen thousand additional Negro farmers were enrolled as demonstrators under white agents.⁶

The expansion of Farmer's Cooperative Demonstration Work among black farmers failed to keep pace with that provided for white farmers. As a result of prejudice, financial support, especially at the local and state levels, was extremely difficult to obtain for the employment of more black agents. Work with black women started in 1912 when Annie Peters Hunter, of Oklahoma, and Mattie Holmes, of Virginia, became the first two Negro home demonstration agents.

*Seaman A. Knapp died April 1, 1911. His son, Bradford Knapp, was quickly appointed to his position.

Pioneer Extension Efforts at Predominantly Black Institutions

Pioneer extension efforts began with Booker T. Washington—the first black educator to strongly advocate teaching rural black people outside the classroom. Washington initiated the first “Annual Farmer’s Conference” at Tuskegee Institute in February 1890, just nine years after he founded the college. More than 500 black farmers attended the conference.

At Tuskegee’s 1895 Annual Farmer’s Conference a set of objectives was developed to emphasize the black tenant and farmer’s desperate need for useful information. These objectives, which applied equally well to the poor white farmer and tenant, were

1. to abolish and do away with the mortgage system as soon as possible;
2. to raise our food supplies, such as corn, potatoes, syrup, peas, hogs, chickens, etc. at home rather than go in debt for them at stores;
3. to stop throwing away our time and money on Saturdays by standing around town, drinking, and disgracing ourselves in many other ways;
4. to oppose at all time the excursions and camp meetings, and to try earnestly to secure better schools, better churches, better teachers and better preachers.
5. to try to buy homes, to urge upon all Negroes the necessity of owning homes and farms, and not only to own them, but try to beautify and improve them.⁷

Washington’s idea to meet these objectives and to help solve the other problems black and low-income people confronted daily was to adapt education to their immediate needs. Campbell quoted Washington’s belief and theory: “We shall prosper in proportion as we learn to dignify and glorify labor and put brains and skill into the common occupation of life.”⁸

Washington wasted little time in adopting other innovative ideas that could help deliver useful and practical information to farmers in the Tuskegee area. He used the pulpits of surrounding churches to urge blacks to improve their farms and homes. In 1896 he recruited George Washington Carver to organize and head a department of agriculture. Carver expanded the institute’s extension activities. On Saturdays and Sundays “he would place some demonstration tools and materials in a buggy and travel to the rural areas surrounding Tuskegee giving helpful demonstrations to farmers.”⁹

Early in 1906 Carver and others, at the urging of Washington, drew up plans for a “demonstration wagon.” The wagon was equipped with hand tools, garden tools, mule drawn implements, seeds and more for demonstrating better ways of farming. The Jessup Agricultural Wagon, as it was called, was named for the man who had donated funds for its purchase and outfitting, which cost \$674.50. It was more commonly referred to as the first “movable school.” The Jessup Agricultural Wagon was field tested during the summer of 1906. Campbell was assigned the responsibility of operating it for the USDA and the Bureau of Plant Industry with Tuskegee Institute as his headquarters.

Campbell traveled throughout central Alabama and into Mississippi and Georgia during his early years as an agent. The influence of the movable school was immense because the method demonstration could be used to

teach better ways of planting, cultivation, harvesting, storage and marketing. Improved livestock through better selection, feeding and management was emphasized. Campbell's work concentrated on black farmers and tenants, but demonstrations were occasionally held on white farmers' holdings as well.

Campbell operated his movable school out of the Tuskegee Institute for 13 years until he was promoted. On Jan. 1, 1919, he and Pierce, the first black county agent appointed in Virginia, were employed by the Office of Cooperative Extension Work as general field agents in the South. Their headquarters were at Tuskegee and Hampton Institutes, respectively.

In 1918 a truck was purchased and outfitted from Alabama State Extension Service funds. It became the Knapp Agricultural Truck. When the original truck was replaced in 1923, it became the Booker T. Washington Agricultural School on Wheels.

After the Smith-Lever Act passed, a home demonstration agent became part of the movable school educational team. In 1920 a nurse was added. During day-long schools the agricultural agent conducted demonstrations for farmers while the home agent and nurse taught women better methods of keeping house, preserving vegetables and fruits and improving sanitation. At that time in rural homes, health and sanitation standards were low, and disease and malnutrition were widespread.

The key objective of the movable schools was to teach farmers and homemakers "how to do" by showing not just by telling. Evans noted that in 1923 Tuskegee's movable school had

"... spent 164 days in the field, held 22 extension schools in as many counties . . . and reached 67 communities. The total attendance at these schools was 24,455 men, women and children. Both county agricultural and home demonstration agents consider that the movable school was of great help. . . . It stimulated interest in all lines of work and advertised the program of work in the county as nothing else could."¹⁰

As additional agents were employed, railroads became the main means of transportation for movable schools. Farmers met agents at local train depots and transported them and their tools and materials to rural areas for the demonstrations. Schools and churches often served as learning centers because they were common meeting places.

Robert Moton, president of Tuskegee Institute from 1915 to 1935, felt extension service helped people get along better. In his address before the Annual Tuskegee Farmer's Conference in the late 1920s, he noted:

I have been deeply impressed by what the federal and state extension workers have done to teach the people how to live together. These workers have shown white and colored people to live together peaceably. They have allayed jealousies, suspicion and hatred. They have taught the people the value of thrift, patience, and morality. Negro extension workers have shown rare good sense. They have spent energy and patience and money in helping to adjust race relationships.¹¹

Tuskegee used the movable school idea of disseminating scientific information in agriculture, home economics and health until 1944. This "whole farm and home" demonstration method benefited not only tenant

sharecroppers and landowners but entire communities. Many examples set by friends, relatives and neighbors were readily followed. But in spite of such success, progress was slow and difficult.

Relevancy of Education of Blacks to Extension Efforts

The history of education for blacks is well documented.¹² Higher education for blacks, however, is relevant to extension service's ability to staff and conduct an effective education program.

Rufus Atwood, president of then Kentucky State College from 1929-1962, noted three stages in the evolution of the 1890 black colleges. He spoke of Stage I as the period where religious and philanthropic groups and other citizens established private colleges as a direct outgrowth of segregation. Eleven were established by 1880. He described Stage II as the boom period from 1890 well into the 20th century. Atwood noted some problems in this stage.

There was duplication of services and the offering of services which many doubted the so-called colleges were qualified to handle. There was recognized competition for students and adjustments made in order to keep high enrollments. The situation grew steadily worse during the years of the twentieth century until finally America was jolted into taking the problem of higher education for Negroes seriously.¹³

By midcentury Atwood found, "The publicly-supported Negro college has survived the stigma of charity; it has fought and won the battle of curriculum justification; it has overcome the prejudice of the 'culturally deprived'; it is measuring up to the standards set for all colleges of equal status;"¹⁴ and, thus, it had moved to Stage III.

In 1956 Eddy reported:

In their own way they (the 1890 institutions) are as unique in American education as the other 52 Land-Grant colleges and universities. Historically, they have developed under entirely different conditions and with handicaps unknown to the other 52. They are the product of the social and economic pattern of a particular region rather than a nation. The Negro institutions have been and continue to be operated under a time lag of some 15 to 25 years behind the other institutions with which they share the name "Land-Grant." Their progress since the mid-thirties, however, shows ample promise of an erasure of that lag.¹⁵

Payne noted that "as late as 1928 more students enrolled in sub-collegiate work than in college work, but this changed dramatically for in 1970 the 1890 colleges and Tuskegee enrolled 50,000 students or 20 percent of all black students then in college with approximately 5 percent of them white." He related the case to the Cooperative Extension Service work by quoting the 1939 President's Advisory Committee on Education:

The most liberal interpretation that can be made of the situation indicates that the Negro has been discriminated against in the administration of the Smith-Lever Act in the South and this discrimination has occurred in spite of the fact that there was sufficient basis in the legislation for the Department of Agriculture to have prevented it.¹⁶

This situation existed until 1972 when Congress provided special appropriations for extension service at the 1890 institutions and Tuskegee.

Obtaining adequate numbers of black students qualified to enroll in college-level courses was a long-standing problem until the early 1960s. No public or private high schools for blacks existed in the South when these colleges were established. As a result, the 1890 institutions as well as Tuskegee and Hampton Institutes were forced to offer college preparatory courses. By 1916 only 64 public high schools were opened for blacks in the southern states. The first four-year, college-level program in an 1890 institution was initiated in 1909. Table 1 outlines the chronological development of these 1890 colleges and Tuskegee Institute.

Relevancy of Research to Extension Service in 1890 Colleges

Extension educators cannot properly function without a sound and relevant research base. This also applies to classroom instructors. Nevertheless, little research was conducted at the 1890 institutions, except for Tuskegee, until the 1950s. Table 1 indicates when significant research activities became an important element in the institutions' operations. Two main reasons contributed to this long delay. First, funds were not available for the support of an ongoing research program of any consequence. Secondly, officials of these institutions historically looked at their colleges as primarily teacher-training institutions. As a result, they did not aggressively pursue a research role, even though a few of their faculty members conducted some relevant and highly successful research activities. Some exceptional research included George Washington Carver's work during the early years of the 20th century, B. D. Mayberry's efforts 25 years later and Ernest Neal's studies in the social sciences.

The 1952 Report of the Conference of Presidents (of land-grant colleges) noted that only seven 1890 institutions had a research budget. These funds for fiscal year 1952 ranged from \$3,000 to \$8,200.¹⁷

After years of lobbying, \$283,000 out of \$2 million was allocated for natural resources research at the 1890 institutions and Tuskegee Institute for fiscal year 1967 by USDA under provisions of Public Law 89-106.* Each institution received a base amount of \$10,000. Over the years North Carolina A & T has received the largest share of these funds; Delaware State College has received the smallest share. By 1976, 13 of the 17 institutions were cooperating in this effort. In the first nine years 234 research projects had been funded through the Cooperative State Research Service (CSRS). Each project grew out of consideration of national research priorities, and each was approved at the national level. For the five fiscal years from 1971 to 1975, grants totaled nearly \$7.5 million. This amount was approximately 15 percent

*The purpose of this law was "to facilitate the work of the department." It gave USDA the legal flexibility to fund research at colleges and research institutions not previously considered eligible.

Development History of 1890 Institutions and Tuskegee Institute*

TABLE I

| Name of Institution | Year Founded | Year Designated A Land-Grant University | Initiated 4-Year Program | Initiated Graduate Program | Achieved Regional Accreditation | Year Formal Research Work Established | Year Formal Extension Work Established |
|--|--------------|---|--------------------------|----------------------------|---------------------------------|---------------------------------------|--|
| 1. Alabama A&M University | 1875 | | 1939 | 1958 | 1963 | 1967 | 1972 |
| 2. Alcorn State University** (Mississippi) | 1871 | 1871 | 1871 | 1975 | 1961 | 1967 | 1972 |
| 3. University of Arkansas (at Pine Bluff) | 1873 | | 1929 | | 1933 | 1967 | 1972 |
| 4. Delaware State College | 1891 | 1891 | 1947 | | 1957 | 1967 | 1972 |
| 5. Florida A&M University | 1887 | | 1909 | 1951 | 1949 | 1957 | 1972 |
| 6. Fort Valley State College (Georgia) | 1895 | 1947 | 1945 | | 1957 | 1954 | 1972 |
| 7. Kentucky State University** | 1886 | | 1929 | 1972 | | 1967 | 1972 |
| 8. Langston University (Oklahoma) | 1897 | | | | | 1967 | 1972 |
| 9. Lincoln University (Missouri) | 1866 | 1870 | 1924 | 1940 | 1934 | 1967 | 1972 |
| 10. University of Maryland (Eastern Shore) | 1886 | | 1936 | | 1953 | 1967 | 1972 |
| 11. North Carolina A&T State University | 1891 | 1915 | 1925 | 1939 | 1936 | 1964 | 1972 |
| 12. Prairie View A&M University** (Texas) | 1876 | 1891 | 1901 | 1954 | 1958 | 1947 | 1972 |
| 13. South Carolina State College** | 1872 | 1872 | 1924 | 1948 | 1960 | 1967 | 1972 |
| 14. Southern University (Louisiana) | 1880 | | 1922 | 1957 | | | 1972 |
| 15. Tennessee State University | 1909 | 1911 | 1922 | 1942 | 1946 | 1960 | 1972 |
| 16. Tuskegee Institute (Alabama) | 1881 | | 1928 | 1943 | 1933 | 1897 | 1906 |
| 17. Virginia State College** | 1882 | 1920 | 1943 | 1937 | 1933 | 1937 | 1972 |

*Basic data from *Development of Research at Historically Black Land-Grant Institutions* prepared by the Association of Research Coordinators, 1890 institutions, no publisher noted, 1976, Table I, p. 5. Other data from personal correspondence and from other references.

**Five institutions were funded under provisions of the 1862 Morrill Act: Alcorn in 1871, Kentucky State in 1889, South Carolina Agricultural College in 1872 (but attached to Claflin University until 1896), Hampton Institute in 1872 (but Virginia State became the designee in 1920) and Prairie View A&M in 1891.

NOTE: West Virginia discontinued its black land-grant college in 1957 when West Virginia State College was incorporated into its statewide system of higher education. Princess Anne College was incorporated into Maryland's system of higher education in 1948 and was named Maryland State College but again renamed the University of Maryland, Eastern Shore in 1970.

of the total funds available under Public Law 89-106. Research with "hard" money that could be relied upon had finally become a reality.¹⁸

Peters and Hubbard of Florida A&M University put the issue in perspective when they wrote in 1976:

It is the intent of the Cooperative State Research Service that P. L. 89-106 monies be used to develop the very best programs of research possible. The 1890 Land-Grant institutions are developing various centers for specialized areas of research. To obtain a base for competent research is only a start if CSRS is to obtain its goal. The day-to-day detailed research must accumulate before these areas of research are recognized at the 1890 Land-Grant Universities. It is apparent to us that such research has begun in the natural resources.¹⁹

Present Scope of Extension Education Programs

Primary areas of emphasis: The 1890 institutions have restricted outreach programs to the technical areas in which they have experience and faculty expertise. The major program areas are agricultural production, human nutrition and community development.

A number of the institutions have livestock programs with primary emphasis on feeder pig production, an activity that often fits into a small farm operation. Truck gardening based on seasonal fruit and vegetable production is a natural choice. Management and marketing also receive a great deal of attention.

Tuskegee Institute, for example, has developed a horticultural package focusing on five crops—sweet potatoes, blueberries, blackberries, strawberries and muscadine grapes. These crops provide almost year-round income and good market potential with no competition for harvesttime labor.

Educational activities in human nutrition are important to the rural and urban poor because malnutrition is a common denominator among lower income levels and contributes to poor health and less resistance to disease. Personal hygiene and home sanitation are other major thrusts of such educational activities. Not a single 1890 institution, however, has been assigned a role in the Expanded Food and Nutrition Education Program (EFNEP), a program geared to teaching nutrition to low-income people. Some defend this by claiming that the EFNEP program dates from 1968 to 1969 while the 1890 institutions did not begin their expanded extension programs until 1972.

Virtually all the 1890 institutions employ one or more specialists in community development, a major area of concern. These specialists often work directly with community leaders and elected officials. Emphasis is placed on improving communications, housing, transportation, cooperatives, water and sewage systems, home crafts and the number of small industries located in rural areas. These specialists work with governmental agencies through special programs designed to enhance community development. Although such programs are plentiful, many rural people and leaders in small communities are not always aware of the available assistance.

None of the institutions have developed what could be called a strong youth program. Youth work is conducted mainly by agents from 1862 institutions.

Strategy: Although the 1890 extension programs are open to everyone, emphasis is on limited-resource farmers and their families. For example, Tuskegee Institute developed its program on the following premises.

- Limited resource farmers can be reached, and they have indicated their desires to improve farm enterprises;
- There is an inability to make the best use of available resources;
- There is a lack of knowledge as to how they may increase their income from farm enterprises;
- There is a lack of knowledge as to which technology to use;
- There is a shortage of investment capital and they are inexperienced in financial management;
- There is a lack of information and the general absence of contact with public agencies and institutions designed to serve agricultural-related clients.²⁰

The 1890 institutions recognize their limited financial and personnel resources. Part of their strategy is to stretch available funds to the furthestmost limit. To accomplish this they have

- kept administrative and overhead operating costs to an absolute minimum;
- employed an optimum number of headquarters specialists;
- used students as clerical and field assistants whenever possible;
- hired program assistants on a part-time basis in most instances;
- combined offices with 1862 extension colleagues whenever possible to keep rent and utility costs down;
- restricted the geographical area to the optimum to reduce travel and per diem costs;
- solicited funds from other governmental and private agencies to augment, expand and improve their extension efforts.

Geographical Concentration: The 1890 institutions have restricted their outreach activities to those counties and parishes surrounding and immediately adjacent to the campus. For example, Alcorn State University concentrates its efforts in the 17 counties of southwest Mississippi; Tuskegee Institute works in the 12 middle-belt counties of Alabama.

Methods: The basic teaching methods of the 1890 institutions are no different from those used by extension educators everywhere. Emphasis, however, is placed on method and result demonstrations, one-on-one situations and small group meetings. Information and teaching materials are highly pictorial and normally written at an eighth-grade reading level because many adult cooperators have not completed high school and are only functionally literate.

Such teaching methods accept the sociological, economic and cultural realities of their clientele. Namely, they

- feel more comfortable in individual and small group situations;
- are suspicious of outsiders (that's why the program assistant is almost always a local resident and leader);
- are not able to travel great distances for a meeting;
- may not subscribe to newspapers or farm magazines carrying the latest technical information;

- are more willing to accept results of demonstrations conducted on farms and in homes of their friends, neighbors and relatives.

These methods have proven to be most effective, even though they limit the number of people contacted and assisted.

In some instances the specialists have concentrated their efforts on organizing farmers into cooperative groups. This enables farmers to purchase production inputs at a more economical rate as well as pool their produce for enhanced transportation and marketing opportunities. These steps help maximize profits. In addition, they add to group cohesiveness, competitiveness and confidence.

Meeting Clientele Needs

Today's agents from the 1890 institutions work with all clientele groups within their designated geographic and subject matter areas in full cooperation with their 1862 institution colleagues. Over the years they have developed a special rapport and methodology for working with certain clientele groups. These groups fall into several categories that include urban limited-resource families, the hard-to-reach, the alienated and especially, the rural disadvantaged. Within these categories are tenants, small farm owners, part-time farmers, homemakers and, of course, youth.

The physical setting and historical tradition of service and response to needs work as positive forces for the extension education programs of these predominately black colleges. They often provided and still provide educational opportunities available nowhere else. Now, through expanded off-campus, outreach programs, they are extending this opportunity to even greater numbers and much wider audiences.

In a 1968 survey of 1890 administrators, Williams found the following.

The outreach programs are moving from a Negro clientele to multi-racial clientele in both rural and urban areas. Considerable emphasis is on work with the lower socio-economic groups without regard to race, color, or creed. Specific clientele being served . . . include managerial (small-business), out-of-school dropouts, low-income adults and youth, farmers, homemakers, ministers, school teachers, community leaders, nursing and other aides, and the retired and aged.²¹

As these institutions gain experience and financial support, their outreach programs will grow even more as uniquely qualified means of dealing with many of the educational problems of the institutions' clientele groups.

In fiscal year 1976, 1890 institutions received from USDA appropriations funds earmarked for "Small, Part-Time Farm and Home Garden Producers" projects. This resulted in an increase in joint planning, leadership and funding for both rural and urban families.

Program Delivery

The 1890 and 1862 institutions operate almost identically. Both rely on administrative, accounting and personnel staffs to make top management

decisions, recruit and update specialists and agents, comply with state and federal regulations and receive and expend funds according to accepted procedures.

Specialists: Extension specialists fill the role of technical experts. They interpret highly technical research data from public and private research agencies into terms agents, lay leaders, farmers, youth and homemakers can grasp and put into practice. They prepare television and radio programs and, in cooperation with information specialists, write news releases, bulletins and other material for publication and distribution. They update agents through training sessions and individual discussions and serve as resource persons at public meetings, tours and demonstrations.

A difference between the 1890 and 1862 institutions is their number of specialists. Specialists at 1890 institutions seldom exceed five or six. Many 1862 institutions, especially in the more populous states, have more than 100. Usually, the 1890 institutions employ only one or two specialists in each agriculture, human nutrition and home management and community resource development. Less than half employ a 4-H and youth program specialist.

District Agents: Many Cooperative Extension Services employ district agents who are more appropriately titled "supervisors" or "area administrators." They coordinate programs and manage staff over a multicounty area. Not all 1890 institutions employ district agents.

County Agents: Well-trained and competent county agents are the backbone of any effective extension service. They are the front line troops, so to speak, supported by the technical backstopping of specialists. Their day-to-day contacts with community leaders, farmers, homemakers and youth give them a broad base for implementing an effective educational program. The educational techniques and methods used by agents representing the 1862 and 1890 institutions are identical.

No uniform county agent staffing pattern is followed by the 1890 institutions. Some agents work in only one county, some in two. The numbers of men and women filling agent positions are nearly equal. None employs agents solely for community resource development or 4-H and youth work, but some 1862 institutions do. Few black agents serve as coordinators of county programs, although a considerable number are senior to white agents. In most instances of equal experience and qualifications, the salaries of black agents, specialists and administrators are less than those of white agents. This continues even fifteen years after civil rights and equal opportunity legislation.

An interesting sidelight, however, is that T.M. Campbell, the first full-time black county agent with a USDA appointment, was employed in Alabama on Nov. 10, 1906,²² two days earlier than W.C. Stallings, the first full-time white agent employed in Texas.²³

A comparison of the number of black and white county agents employed from 1906 to 1977 illustrates some interesting trends. True notes that by the end of 1914 (six months after the Smith-Lever Act became law) 1,221 white agents were in 15 southern states and 53 black agents were in 11 southern

states. This is a ratio of 21:1.²⁴ The total number of agents increased to 3,352 by July 1, 1920. The breakdown is 2,120 white and 232 black.²⁵ The total number of agents increased to 3,438 by July 1, 1923. Of these, 3,155 were white (91.8 percent) and 283 black (8.2 percent). The number of blacks employed dropped to 6.3 percent in 1935 and returned to the 1923 level in 1945 and 1950. It has dropped steadily since that time.²⁶ More detailed data are presented in Table 2.

TABLE 2
Employment Comparison of White and Black
County Extension Agents, 1904 to 1977*

| YEAR | AGENTS EMPLOYED | | | | TOTAL |
|------|-----------------|---------|--------|---------|-----------|
| | Negro | | White | | |
| | Number | Percent | Number | Percent | |
| 1904 | 0 | 0 | 20** | 100 | 20 |
| 1906 | 2 | 4 | 49** | 96 | 51 |
| 1909 | 9 | | | | |
| 1912 | 32 | 4 | 700 | 96 | 732 |
| 1914 | 100 | 3 | 2,992 | 97 | 3,092 |
| 1920 | 232 | 7 | 3,140 | 93 | 3,372 |
| 1923 | 282 | 8 | 3,168 | 92 | 3,450 |
| 1930 | 303 | 7 | 3,990 | 93 | 4,293 |
| 1935 | 326 | 6 | 4,943 | 94 | 5,169 |
| 1940 | 490 | 7 | 6,306 | 93 | 6,796 |
| 1945 | 547 | 8 | 6,094 | 92 | 6,641 |
| 1950 | 782 | 8 | 8,736 | 92 | 9,518 |
| 1955 | 851 | 8 | 9,941 | 92 | 10,792 |
| 1960 | 824 | 7 | 10,158 | 93 | 10,982 |
| 1965 | 860 | 7.5 | | | 11,436 |
| 1970 | N/A | | | | 10,916*** |
| 1975 | N/A | | | | 11,357*** |
| 1977 | N/A | | | | 11,100*** |

*Employed by the Cooperative Extension Service, USDA, or its predecessor agencies. Data compiled from Annual C.E.S. Reports, *The Reluctant Farmer, A History of Agricultural Work, 1785-1923*, and Groening's "Funding of Extension," unpublished paper, 1979.

**These agents were really special "collaborators" with the first agents appointed in 1906 under a cooperative funding agreement.

***Includes area agents—1,043 in 1970; 1,351 in 1975; and 1,360 in 1977.

Program Assistants: The biggest share of extension teaching in the 1890 institutions is conducted by program assistants (PAs) or paraprofessionals. These PAs are not professional extension agents and are usually not college graduates. Most work part time and are paid an equivalent wage. PAs are, for

the most part, recognized community leaders who live and work in their immediate locale. In-service training is a continuous activity for them. Agents and specialists from both 1862 and 1890 institutions plan and conduct the training which emphasizes face-to-face or small group contacts through method and result demonstrations and farm and home tours.

Administrators of 1890 programs agree that PAs are the most effective and efficient extension teaching vehicles for work with low-income and disadvantaged farmers and homemakers, both black and white. These PAs are often part-time farmers (some are rural pastors) who are cognizant of their neighbors' frustrations, problems and aspirations and can speak in their language. Two or three PAs can be employed with the funds that would be required to hire and support one full-time professional county agent. Both blacks and whites are eligible for employment as PAs, but most are black, especially in areas where the majority of farmers are black.

The 1862 institutions also use paraprofessionals, such as women in EFNEP and some men in production agricultural work.

Administration of 1890 Extension Programs

Administration: The person in charge of extension programs in an 1890 institution carries the title of "administrator." The "director" is responsible for managing and conducting extension efforts at the 1862 institutions. This arrangement is in deference to the original Memorandums of Understanding, developed under Smith-Lever Act procedures, which designate each director as responsible for the state's Cooperative Extension Service.

In most cases the administrator reports directly to the president of the institution. To insure coordination of a comprehensive, statewide extension program, the administrator must by law work closely with his counterpart director at the 1862 institution. The administrator's appointment is subject to the approval of the USDA secretary and the institution's official governing board.

Each 1890 institution operates under two separate Memorandums of Understanding, one with USDA and one with the 1862 university. Until 1978 only the memorandum with the 1862 institution was necessary. This was changed when the 1977 Food and Agriculture Act became law. This act provided the 1890 institutions with complete autonomy as far as funding is concerned.

These two memorandums are reproduced in Table 3 and Table 4. The memorandum between each 1890 institution and the USDA are identical. The table showing the arrangements between Alabama A&M, Tuskegee Institute and Auburn University (the 1862 institution in Alabama) varies little from such arrangements in the other 15 states which have both 1862 and 1890 land-grant institutions.

TABLE 3

**Memorandum of Understanding Between
(1890 Land-Grant Institution and Tuskegee Institute)
and the United States Department of Agriculture on Extension Work**

Whereas, Section 1444 of Public Law 95-113, Food and Agriculture Act of 1977, (hereinafter referred to as Section 1444) authorizes appropriations to the U.S. Department of Agriculture (USDA) to support continuing agricultural and forestry extension at the colleges eligible to receive funds under the Act of August 30, 1890, 7 U.S.C. 321-326, 328, including Tuskegee Institute (hereinafter referred to as eligible institutions); and _____

Whereas, Section 1444 (c) requires that a single, comprehensive program of Extension be developed for each State where an eligible institution is located;

Now Therefore, in order to provide for the effective administration of a single, comprehensive State Extension program to meet the needs of the citizens of the State of _____, the President of the _____ (*eligible institution*) acting subject to the approval of the Board of _____ of the said Institution (hereinafter referred to as Institution) and the Secretary of Agriculture of the United States hereby agree as follows:

I. The Institution agrees:

- A. To maintain a definite and distinct administrative office for the management and conduct of all Extension work, which shall be under the direction of an Administrative Head of Extension whose selection is subject to the approval of USDA;
- B. To administer through such office any and all funds the Institution now has or may hereafter receive for Extension work regardless of whether such funds are from appropriations made by Congress or from other sources;
- C. To work with the _____ (*1862 Land-Grant Institution*) to mutually develop a single, comprehensive Extension program for the State of _____, that, among other things outlines the division of responsibilities and areas of cooperation between the Institutions;
- D. To work with the _____ (*1862 Land-Grant Institution*) to mutually develop detailed, annual plans of work for the conduct of Extension activities in the State of _____ and;
- E. To conduct Extension activities and account for the use of Federal funds in accordance with such policy guidelines and conditions as may be promulgated by USDA.

II. USDA agrees:

- A. To maintain an administrative unit within the Science and Education Administration (SEA) of this Department which, under the direction of the Secretary, shall:
 1. Administer all Extension programs under the jurisdiction of USDA;
 2. Coordinate the Extension phases of all other programs under the jurisdiction of USDA; and
 3. Act as liaison between this Department and the eligible institutions on all matters relating to Extension work in Agriculture, Natural Resources, Food and Nutrition, Family Education, Rural Development and 4-H Youth Development.

III. The Institution and USDA mutually agree:

- A. That all Extension work involving the use of Federal funds shall be a part of a single, comprehensive State program of Extension and an annual plan of work, which shall be jointly planned by the Administrative Head for Extension of the Institution and the State Director of Extension at _____ (*1862 Land-Grant Institution*) subject to the coordination and approval of the Deputy Director for Extension, SEA; and that the approved program shall be carried out by the Institution in accordance with the terms of an agreement between the Institution and USDA setting forth project work areas and administrative requirements.
- B. That the Institution shall be primarily responsible for the selection and performance of the Extension projects to be carried out by the Institution with Section 1444 funds as a part of the approved Extension program of the States.
- C. That the cooperation between the Institution and USDA shall be plainly set forth in all publications or other printed matter issued in connection with the conduct of Extension work either by the Institution or USDA.
- D. That USDA shall not enter into any agreements with other parties affecting the

conduct of Extension work by the Institution without first consulting with the Administrative Head for Extension of the Institution.

- E. That all State and county personnel appointed by the Department as cooperative agents for Extension work in agriculture and home economics in the State shall be joint representatives of the Institution and USDA, unless otherwise expressly provided in writing.
- F. That the Institution will make arrangements with Federal agencies affecting the conduct of Extension work only through the Deputy Director of SEA, or in accordance with an existing agreement approved by him.
- G. That all agreements hereafter executed by either party, which affects the conduct of Extension work, shall be within the framework of and consistent with the intent and purpose of this memorandum of understanding.
- H. That all memoranda and agreements affecting policies in Extension work shall be reviewed periodically by appropriately designated representatives of the eligible institutions and the Secretary of Agriculture for the purpose of determining whether modification is necessary or desirable to meet current developments and program needs more effectively.
- I. This Memorandum of Understanding shall take effect when it is signed by the President of the Institution and the Secretary of Agriculture, and shall remain in force until expressly abrogated in writing by either one of the signers or his or her successor in office.

DATE _____ BY _____ (1890 Land-Grant Institution or Tuskegee Institute)
President

DATE _____ BY _____ United States Department of Agriculture
Secretary

TABLE 4

Memorandum of Understanding Between Alabama A&M University and Tuskegee Institute and Auburn University on Extension Work

PURPOSE:

WHEREAS, The Alabama A&M University and Tuskegee Institute and the Auburn University have entered into memoranda of understanding with the U.S. Department of Agriculture to carry out Extension work in the state of Alabama;

AND WHEREAS, Section 1444 of Public Law 95-113, Food and Agriculture Act of 1977, requires that a single, comprehensive program of Extension be developed for the State;

NOW THEREFORE, in order to provide for effective administration of a single comprehensive State program, the President of Alabama A&M University and the President of Tuskegee Institute acting subject to the approval of the Boards of Trustees and the President of Auburn University acting subject to the approval of the Board of Trustees hereby agree as follows:

- A. To mutually develop a single comprehensive program of Extension work for the State which shall be described in a joint statement setting forth the division of responsibilities and areas of cooperation between the institutions. The comprehensive statement shall remain in force until it is revised by mutual agreement.
- B. To submit the comprehensive program statement and any revisions thereof to the Secretary of Agriculture for approval.
- C. To mutually develop detailed plans of work that will be submitted on an annual basis to the Science and Education Administration, U.S. Department of Agriculture, for review and approval by the Deputy Director for Extension.
- D. To take the necessary steps to effect a joint Extension program at the county, district and State levels.
- E. To recognize the primary responsibility of each institution for the selection and perfor-

mance of the Extension projects to be carried out by it as part of the comprehensive program of Extension work in the State.

- F. To have planned interactions between the Director of Cooperative Extension Service and the Administration Head of Extension to ensure that annual plans of work and projects are jointly planned and coordinated.
- G. To develop organizational structure at the county, district and State levels that promote unified programs and discourage fragmentary or duplicative programs.
- H. To ensure as far as possible that county staffs carrying out such programs shall be:
(1) housed in the same office, or (2) housed in locations in the county that facilitate the ready exchange of programming plans and ideas, and the coordinated implementation of the county's program of work.
- I. To sanction the coordinated nature of the Extension program in the State.

ALABAMA
A&M UNIVERSITY

TUSKEGEE
INSTITUTE

AUBURN
UNIVERSITY

BY _____ BY _____ BY _____

Program Coordination: At the district level program coordination is carried out by district agents. Coordination at the county level is the responsibility of a designated county agent, usually the senior agent. How this is supposed to work in practice is illustrated in Figure 1.

The solid lines indicate a direct chain of command function; the dotted lines represent a coordinating function. Figure 1 represents the Alabama network, but the other 15 states with 1890 colleges follow a similar organizational structure.

Effectiveness and Efficiency: It is difficult to judge whether the total extension effort in any of the 16 Southern and border states was more effective and efficient in 1979 than prior to the Civil Rights Act of 1964 or even prior to 1978 when all extension funds were administered by the director. Persons familiar with the situation say that after 1977 more efforts were duplicated at both administrative and operational levels. This could imply a drop in efficiency. Others might argue, however, that the total state program is now broader and more effective in responding to the varied needs of its clientele. Some say it is really too early to make such a judgment. Others say judgment is not necessary, adding: "There's enough for all of us to do so let's get on with the task at hand."

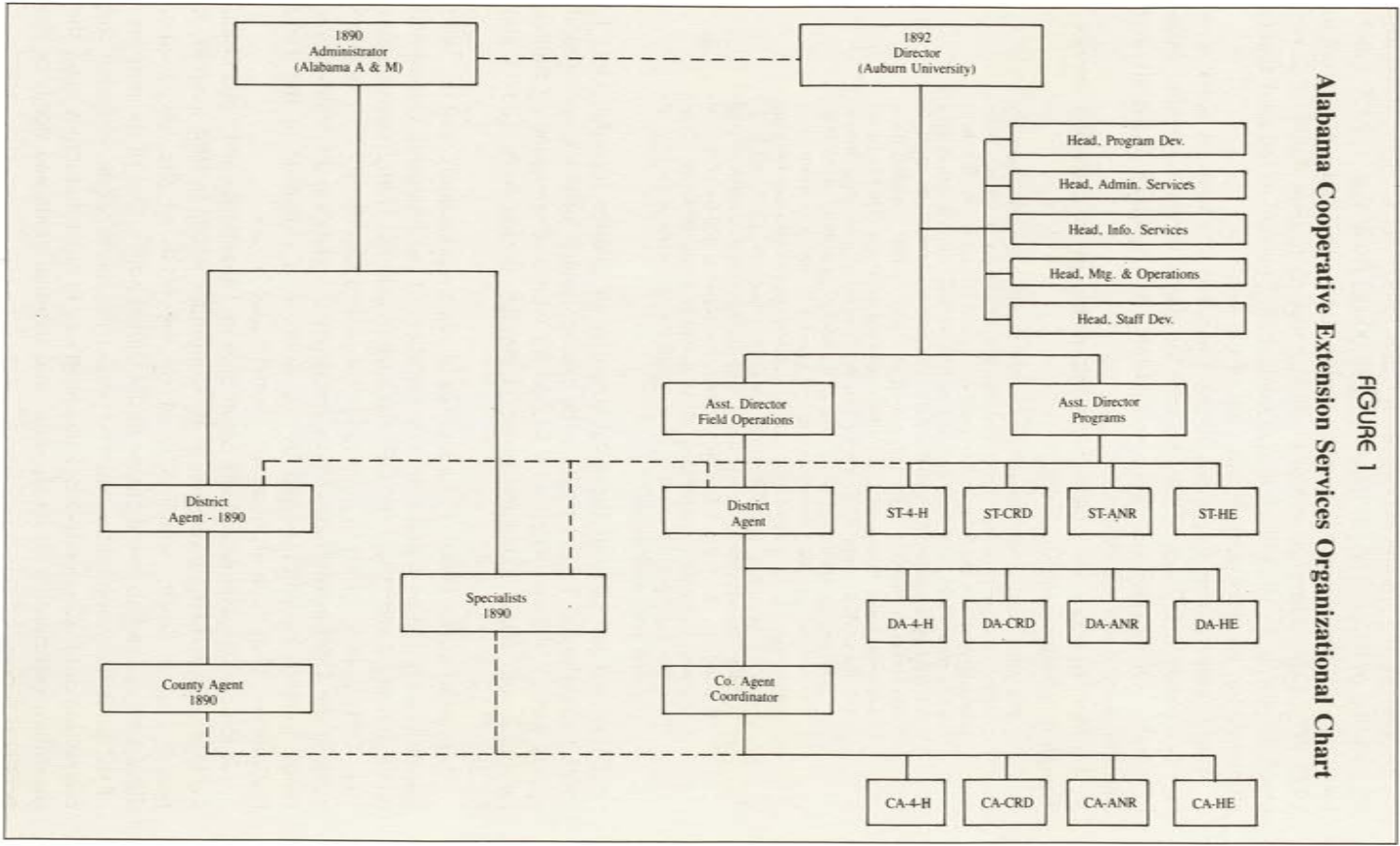
Financing Extension Programs at 1890 Institutions and Tuskegee Institute

Pre-1971 Situation: Extension work with black farmers, homemakers and youth has been inadequately financed since 1906. When Campbell and Pierce were appointed the first black agents (called "collaborators" in the Bureau of Plant Industry, USDA), they received an annual salary of \$841.²⁷ In addition to a salary, funds for materials and maintenance were made available. True wrote:

The funds used for Negro extension agents increased from \$4,184 in 1908 and \$149,264 in 1918 to \$385,085 in 1923. These funds came from the United States Department of Agriculture, Federal and State Smith-Lever funds, county appropriations, and local private sources.²⁸

Alabama Cooperative Extension Services Organizational Chart

FIGURE 1



In contrast, the amount expended for extension service in all the states was \$3,668,066 in fiscal year 1917 and \$11,280,000 in fiscal year 1922.²⁹ Funds for work with blacks was 4.07 percent of the total in 1917 and 3.42 percent in 1922. The expenditure per white employee was more than double that per black employee. In 1923 black agents made up 8.2 percent of the total agents employed but received only 4.7 percent of the funds.

Little improvement was made in the financing of extension work with Negroes between 1923 and 1970. Salaries for blacks lagged far behind those of whites. Office facilities were second-rate, and teaching materials and supplies were never adequate.

Limited finances for blacks were not restricted to extension service. Theodore Schultz wrote in 1966:

The other issue is the extraordinary extent to which the predominantly Negro land grant colleges have been starved financially. A crude, oversimplified comparison of the 16 "Negro" land grant colleges, four Southern white institutions, and the University of Illinois will help tell this story. I selected and classified them so that the enrollment would be about equal. In 1962, the 16 Negro colleges had a total of nearly 36,000 students; the 4 Southern white land grant institutions selected (Auburn, University of Arkansas, Mississippi State, and the University of Georgia) totaled close to 35,000; and the University of Illinois, also a land grant institution, 34,000. The income available for education and general purposes in millions of dollars was 32, 72, and 98, respectively. Income (funds) obtained from the Federal government, again in millions of dollars, was 1.4, 18.7, and 20.8. Turning to expenditures, two items will suffice: for scholarships and fellowships, .5, .6 and 4.2 million dollars, respectively; and for organized research, patently ever so unequal, .2, 16.6, and 23.8 million dollars. Thus runs the sad record of discrimination against Negroes even in the case of our land grant institutions.³⁰

Gilbertson pointed out the great disparity in salaries recorded Oct. 1, 1950. According to USDA figures, the average salary for black agricultural agents was \$2,903 compared with \$4,563 for whites. Corresponding figures for black and white extension home economics agents were \$2,643 and \$3,587.³¹

Situation in the 1960s: For a number of years representatives of the 1890 institutions carried on a dialogue with members of the Extension Committee on Organization and Policy (ECOP) and various officials from Extension Service, USDA, in an effort to have funds earmarked specifically for extension work at the 1890 institutions. Under the original legislation all Smith-Lever funds were to be administered by the director of extension at the 1862 institutions. That method, however, shortchanged blacks.

A joint USDA-National Association of State Universities and Land Grant Colleges (NASULGC) Extension Study Committee issued in 1968 a report, *A People and a Spirit*, which focused on the needs of the low-income, disadvantaged and alienated citizen in the United States. One of the purposes of the joint study committee was "to project the future scope, direction and redirection of the Cooperative Extension Service in order that it may make the maximum contribution to local, state, and national goals and needs of the people it serves."³²

A special chapter in the report was devoted to the role of the predominantly Negro land-grant colleges in the Cooperative Extension Service. The report put forth several special recommendations. Namely,

- extension service should increase its emphasis on programs designed to motivate and assist the disadvantaged and the alienated;
- special funds should be made available to state extension services to enhance cooperative efforts with other colleges and universities in the state;
- give the 1890 institutions a greater opportunity and extra funds with which to tackle these problems;
- in those states where more than one land-grant institution exists develop a more effective program partnership, including a state coordinated plan of work, as well as continuing, additional funding for the 1890 institutions.

Situation, 1972-1978: Several meetings in 1970 and 1971 brought together 1862 and 1890 representatives, Extension Service, USDA, officials and Clifford Hardin, then USDA secretary. Funds totalling \$4 million under Section 3(d) of the Smith-Lever Act were appropriated in 1971 for the 1890 institutions for use in fiscal year 1972. The funds were divided equally among 17 institutions and administered by extension directors in the 16 southern and border states involved.

Total federal appropriations for extension service for fiscal years 1972 through 1978 are shown in Table 5.

TABLE 5
Appropriations For Extension Work
Fiscal Years 1972-1978

| <u>YEAR</u> | <u>To 1890 Colleges</u> | <u>TOTAL</u> | <u>Percent of Total to 1890 Institutions</u> |
|-------------|-------------------------|---------------|--|
| 1972 | \$4,000,000 | \$172,279,000 | 2.3 |
| 1973 | 6,000,000 | 194,331,000 | 3.1 |
| 1974 | 6,000,000 | 204,073,000 | 2.9 |
| 1975 | 6,450,000 | 215,523,000 | 3.0 |
| 1976 | 7,823,000 | 228,935,000 | 3.4 |
| 1977 | 8,400,000 | 241,906,000 | 3.5 |
| 1978 | 9,333,000 | 257,562,000 | 3.6 |

Groening, Ralph E. *Funding of Extension Programs, 1914-1977*. Working paper for the 1974 Evaluation of the Cooperative Extension Service, Washington, D.C. Unpublished, 1979.

In late 1971 the 1890 institutions began planning their extension programs in cooperation with the 1862 institutions. Program implementation began in early 1972. After more than half a century of Smith-Lever legislation, the 1890 institutions finally received earmarked funds for their outreach programs.

These funds were justified according to their use. Five major areas of need were identified as operational plans began to materialize. They were

- low-income farmers and families;

- community and rural development;
- expanded food and nutrition;
- deprived families and youth development;
- leadership development.³³

Situation, 1980s: The Food and Agriculture Act of 1977 (Section 1444) made three significant changes in existing legislation. One mandated that not less than 4 percent of the total federal funds appropriated for extension service be for work at the 1890 institutions and Tuskegee Institute, and that this amount must be not less than that appropriated for fiscal year 1978. The second instructed USDA to pay the funds on a quarterly basis directly to the treasurer or another officer of the 17 eligible institutions. The third insisted that no more than 20 percent of funds received in any fiscal year could be carried over to the next. The act carried on an earlier provision that the 1862 director and the 1890 administrator would jointly develop a statewide comprehensive program.

What does the future hold? It appears that the 1890 institutions and Tuskegee will continue to receive annually at least \$9.3 million to be divided equally among them. No one can predict if this will increase in the future because the Cooperative Extension Service is facing several searching questions. For example, as inflation contributes to rapidly escalating costs, institutions are forced to reduce the number of specialists and PAs. This trend may continue. If so, extension programs will suffer, and the scope, size and effectiveness of the program at both 1862 and 1890 institutions will be reduced.

The Future: The future of predominantly black land-grant colleges and Tuskegee Institute has never looked brighter. They came of age in the 1930s. Student enrollment increased from 3,527 in 1928 to 29,775 in 1961 and to more than 45,000 in 1970. Southern University, at Baton Rouge, La., alone, enrolled nearly 6,000 students in 1978; about 90 percent were blacks.

Physical plant development in the 1960s and early 1970s was nothing short of phenomenal. This growth was funded by federal and state money as well as contributions from philanthropic organizations and alumni.

A sound but still small base for research has been established and is growing. Unfortunately, these research funds come from only federal and private sources because the various states do not earmark research funds of any consequence for these institutions. Competition for any and all research funds is keen, and this competition will increase. Therefore, these institutions must be even more aggressive in their efforts to secure a fair share of the available funds. As their track record becomes recognized, however, they should be better able to compete.

The same situation applies to extension programs funded almost entirely by federal appropriations. State and local governments contribute little to the Cooperative Extension Service work at these institutions. Although state and local governments provide some support in the way of office space, equipment, limited clerical help, supplies, materials and utility bill payments, it is minimal when compared with the assistance they give 1862 institutions.

Two other bright spots have developed in recent years. One is the upgrading of faculty. These institutions are attracting black and white professionals of higher caliber than ever before. The percentage of faculty with advanced and terminal degrees is steadily increasing. Salaries, though still lower than staff at other comparable colleges and universities, are on the rise.

The other bright spot is the tremendous demand for black graduates in private and public sectors. Generally, supply is not keeping pace with demand.

Most important of all, perhaps, is that these institutions are now recognized as offering quality education. They are becoming more competitive in recruiting able secondary school graduates and junior college transfers. Except for Tuskegee Institute, a private school, students enjoy an economic advantage because the cost of a good education is normally less than that at equivalent 1862 institutions.

The 1890 institutions only recently began to explore the field of continuing, or off-campus, education. In the future they can play a more significant role with credit and noncredit offerings. A small but sound operational base and strategy are already established. Now it must be aggressively pursued.

These predominantly black institutions will continue to serve a vital role in the education of Americans just as they have in the past. Only now, they may not have to struggle so hard to achieve it.

One major problem still remains to be solved before these institutions can truly fulfill their on-campus and outreach educational roles. That problem is resources. A greater proportion of funds for teaching, research and extension service must be made available to them and wisely used if their latent contribution to education is to be fully realized.

Notes

¹Campbell, Thomas Monroe. *The Movable School Goes to the Negro Farmer*. Tuskegee, Ala.: Tuskegee Institute, 1946.

²Scott, Roy V. *The Reluctant Farmer*. Urbana, Ill.: University of Illinois Press, 1970.

³United States Department of Agriculture, *Yearbook*, Washington, D.C., 1909.

⁴Scott, Roy V. *The Reluctant Farmer*. Urbana, Ill.: University of Illinois Press, 1970.

⁵Mercier, William B. *Extension Work Among Negroes 1920*. USDA Department Circular 190. Washington, D.C.: 1921.

⁶Scott, Roy V. *The Reluctant Farmer*. Urbana, Ill.: University of Illinois Press, 1970.

⁷⁻⁸Campbell, Thomas Monroe. *The Movable School Goes to the Negro Farmer*. Tuskegee, Alabama: Tuskegee Institute, 1946.

⁹*Cooperative Extension Service, Tuskegee Institute in Retrospect, 1971-1977*. Tuskegee Institute, Alabama Cooperative Extension Service, Tuskegee, Ala.

¹⁰Evans, J.A. *Extension Work Among Negroes*. USDA Circular 355. Washington, D.C.: 1923.

¹¹Smith, C.B., and M.C. Wilson. *The Agricultural Extension System of the United States*. New York: Wiley and Sons, 1930.

¹²*The Journal of Negro Education*. Published quarterly by the Bureau of Educational Research of Howard University, Washington, D.C. Serves as an excellent reference in the field. The *Journal* dates from 1930 and deals with contemporary issues at the time of publication as a documentation of historical research.

¹³⁻¹⁴Atwood, Rufus. "The Origin and Development of the Negro Public College with Special Reference to the Land-Grant College." *Journal of Negro Education*, Vol. XXXI, Summer 1962.

¹⁵Eddy, Edward P., Jr. *College for Our Land and Time*. New York: Harper Brothers, 1957.

¹⁶Payne, William. "The Negro Land-Grant Colleges." *Civil Rights Digest* (Quarterly). Washington, D.C.: U.S. Commission on Civil Rights, Government Printing Office, Spring 1970.

¹⁷⁻¹⁹*Development of Research at Historically Black Land-Grant Institutions*. Association of Research Coordinators, 1976.

²⁰*A Declining Rural America: Some Alternatives and Consequences*. Tuskegee, Ala.: The Human Resources Development Center, Tuskegee Institute, June 1977.

²¹Williams, C.A. "Role and Relationship of Predominately Negro Land-Grant College to the Cooperative Extension Service." Unpublished paper, May 1968.

²²Campbell, Thomas Monroe. *The Movable School Goes to the Negro Farmer*. Tuskegee, Ala.: Tuskegee Institute, 1946.

²³Scott, Roy V. *The Reluctant Farmer*. Urbana, Ill.: University of Illinois Press, 1970.

²⁴⁻²⁵True, Alfred C. *A History of Agricultural Extension Work in the United States, 1785-1923*. USDA, Misc. Publications No. 15. Washington, D.C.: 1923.

²⁶Data subsequent to 1923 from annual reports to Congress by USDA secretary on "Agricultural and Home Economics Extension Work."

²⁷Campbell, Thomas Monroe. *The Movable School Goes to the Negro Farmer*. Tuskegee, Ala.: Tuskegee Institute, 1946.

²⁸⁻²⁹True, Alfred C. *A History of Agricultural Extension Work in the United States, 1785-1923*. USDA, Misc. Publications No. 15. Washington, D.C.: 1923.

³⁰Gilbertson, H.W. *An Analysis of the Sources and Uses of Cooperative Extension Funds*. USDA, Circular No. 475. Washington, D.C.: August 1951.

³¹Schultz, Theodore. "Urban Developments and Policy Implications for Agriculture." *Economic Development and Cultural Change*. Chicago, Illinois: University of Chicago Press, 1966.

³²*A People and a Spirit*. A report of the joint USDA-NASULGC, Colorado State University, Ft. Collins, Colo.: November 1968.

³³Groening, Ralph E. *Funding of Extension Programs, 1914-1977*. Working paper for the 1974 evaluation of the Cooperative Extension Service, Washington, D.C. Unpublished, 1979.



A Look at Extension Service Around the World

Man has always battled Mother Nature in order to grow enough food to survive. But when the Green Revolution of the 1960s came along some agricultural scientists began to predict that this was all behind. They said that a modern agriculture based on the latest scientific findings would be able to provide sufficient food for everyone.

Unfortunately, this has not happened. Millions of people still go to bed hungry each night. Nutritionists and population experts write that 10 percent to 12 percent of the world's 4 billion plus people are either hungry or malnourished or both. Yet many agronomists and economists insist that the present land base and available technology are adequate to produce enough food for today's population.

The first fact cannot be disputed. People are starving around the world. The hungry and malnourished are right here in the United States, too.

Two problems, however, can be found with the production ability claim. One is distribution. Certain areas of the world produce a surplus while others perennially come up with a deficit. This situation is one of economics, or more precisely, one of poverty. Even if adequate food was available, many poor people just do not have money to buy what their families must have to live healthy, productive lives.

Food exports from the "have" to the "have not" nations are not the answer. In times of emergency, this is necessary, but it is not a long-term solution.

The *only* solution is deceptively simple: *The additional food required must come from an expansion of the productive capacities in those countries*

of the world where the shortages exist. There is no other road to food sufficiency. The Cooperative Extension Service must contribute fully to this effort.

A Historical Perspective

The situation of world hunger revolves around the dynamics of human reproduction. It took from the beginning of time until 1850 for the world population to reach 1 billion people. By 1930 the world's population reached 2 billion. It topped 3 billion in 1960, and by mid-1975 it was 4 billion. Demographers project a population of at least 6 billion by the year 2000. Thomas Robert Malthus predicted in 1787 that the world would outgrow its ability to feed its people. Fortunately, this has not occurred yet.

Obviously, a population cannot expand indefinitely without reaching a point where the food supply runs out. It is clear that population size can and does produce a severe strain on agricultural technology. This strain has already lowered the quality of life in some nations of the world and taken a tremendous toll on the natural resources available to man.

Lester Brown outlined in *The Twenty-Ninth Day*¹ this pressure on natural resources. He views with alarm the deforestation, overgrazing and overplowing of the land; the urban sprawl that takes millions of acres out of cultivation each year; and the tremendous and rapid drain on the world's energy reserves.

The conflict between production and population will inevitably continue until the productivity of the land is increased or the rate of population growth is decreased. Neither strategy will work alone, and no short-run solutions exist. Even proponents of zero population growth accept that the built-in growth factor of human reproduction will assure a world population of 6 to 7 billion people by the turn of the century. The agricultural revolution that supported the economic advances of industrialized nations must now be extended quickly to all areas of the poorer, agrarian countries.

Wortman and Cummings in *To Feed This World* wrote, "For the first time in history the world now appears to have the capability of dealing effectively with the difficult problems of hunger and poverty."² A significant part of the solution is to increase both crop and animal production on the millions of small farms around the world. Wortman and Cummings suggest this approach:

First, productive and profitable combinations of technology must be available.

Second, the farmer must be instructed in their use.

Third, necessary inputs (seed, fertilizer, pesticides, vaccines and feed supplements for animals) and credit must be available when and where the farmer needs them and at a price that allows a profit.

Fourth, there must be markets for farm produce.³

Mosher expresses a similar approach. He calls the five essentials of agricultural development as

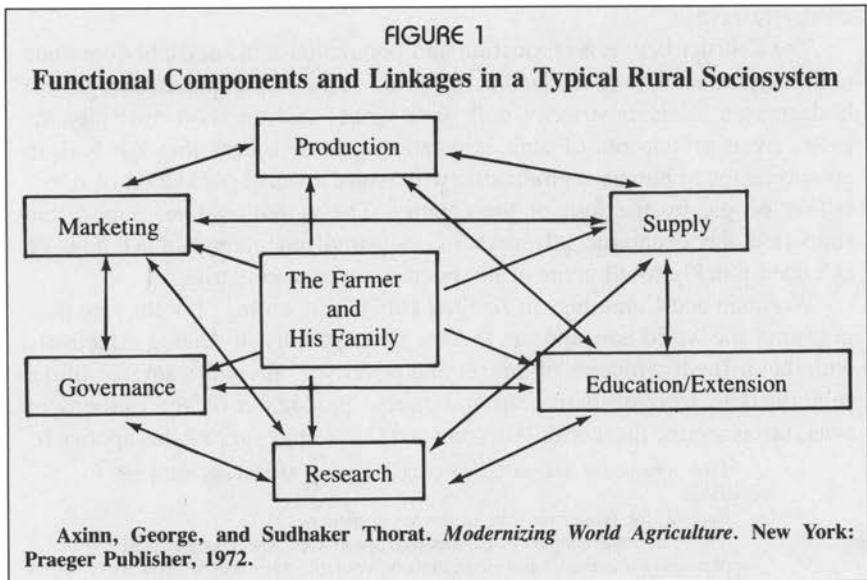
- markets for farm products;
- a constantly changing technology;

- local availability of supplies and equipment;
- production incentives for farmers;
- transportation of farm inputs and products.⁴

Evident in both Wortman and Cummings' strategy and Mosher's essentials is the need for a strong and viable extension service in the agricultural sector. Extension service's role is to carry the necessary know-how to the farmers that produce the food and to increase their capacity to deal with their own problems. The food these farmers produce must be enough for themselves, plus enough to inject into the marketing system to feed their urban counterpart with leftovers for export.

Agricultural Development: A Complicated Task

Axinn and Thorat thoroughly reviewed and compared agricultural extension systems around the world. They detailed the functions of extension services in 12 nations and the organizational formats designed to meet these functions. In the process they outlined the functional components and linkages in a rural social system. See Figure 1. In a geographically remote and isolated rural area that has been self-sufficient for centuries, these components and linkages are all in place. As development takes place, things are disrupted until the parts and linkages are reinforced or replaced on an expanded scale.



Extension is not new: Extension services around the world share the common function of extending information to consumers—the farmer, homemaker and youth. They also share three common features:

- a group of people to be served, often referred to as clientele or target group;

- a system designed specifically to promote change;
- change agents or those individuals employed, trained and charged with the responsibility of operating the system.

Every system has a sponsoring agency, usually a governmental department or bureau. These vary tremendously in organizational form, but most extension organizations are staffed by individuals trained in the technical aspects of agricultural production.

The first nationwide and government-sponsored agricultural extension system was initiated in 1893 in Japan. Table 1 notes the years similar systems were established in 12 countries. Extension activities on a limited scale predate these in every case.

Table 1
Year of Origin of National Agricultural Extension Systems in Selected Countries

| <u>Country</u> | <u>Year of Origin*</u> |
|----------------------|------------------------|
| Japan | 1893 |
| United States | 1914 |
| The United Kingdom | 1946 |
| Israel | 1948 |
| India | 1952 |
| Pakistan | 1952 |
| United Arab Republic | 1953 |
| The Netherlands | 1953** |
| Nigeria | 1954 |
| Taiwan | 1955 |
| Brazil | 1956 |
| Belgium | 1957** |

*Source: Axinn, George, and Sudhaker Thorat. *Modernizing World Agriculture*. New York: Praeger Publisher, 1972.

**Source: *Agricultural Advisory Services in Europe and North America*. The Organization for European Economic Cooperation, Paris, 1957.

Reasons for the big increase: Many countries established extension systems in the 1950s. There are several reasons for this.

- Technical assistance efforts that developed following World War II emphasized agricultural growth and established extension services as an agency to initiate this effort.
- Many countries became independent in the post World War II period and reorganized existing agricultural ministries to include an extension unit.
- Governments of newly independent countries became more sensitive to and aware of the need for a strong development thrust in the rural sector;
- Economic expansion and increased trade made it financially possible to increase agricultural development efforts;
- A significant backlog of research information was available to boost agricultural production but was not vigorously or widely disseminated;
- Farmers and ranchers demanded more services from government;
- Technological development in mass media communications and transportation, as two examples, made extension service more effective and efficient.
- Additional production was encouraged because agricultural crops for export were in great demand.

The United States led the technical assistance movement with a myriad of agencies expressly created for the task. In the early years after World War II, much of the assistance was short-term, taking the form of industrial equipment, commodities and food grains. Later, a long-term solution became obvious. That was to upgrade the agricultural and rural development ministries. As a recognized world power and the most progressive country in agricultural technology, the United States also took the lead in this effort. Administrators, researchers and extension agents were assigned to implement these technical assistance programs in countries around the world.

Three major types of assistance were made available by the United States:

- commodities, including books, lab facilities, printing and teaching equipment and supplies; research and field tools and equipment; and vehicles;
- assignment of research, teaching and extension personnel to institutions and government ministries around the world;
- scholarships for researchers, teachers and extension workers to pursue on-the-job training or study for advanced degrees at U.S. universities and colleges.

These technical assistance activities were massive. More than 20,000 men and women from 100 countries received some training in extension education in the United States alone between 1944 and 1966.⁵ For the most part training was financed by the Agency for International Development (AID) and its predecessor agencies.

The United States was not operating alone in these bilateral technical assistance efforts. Other countries mounted their own efforts. Soon a massive program, often referred to as multilateral, was operated under the auspices of the Food and Agriculture Organization of the United Nations.

At the same time countries around the world expanded their own research and extension programs as they raised their technical competence and committed more financial resources to the task.

The end product of these efforts was the establishment of new research and teaching institutions and the expansion of existing ones. The ultimate objective was to enhance agricultural and rural development.*

Expenditures compared: Boyce and Evenson have developed a method to analyze the development of research and extension programs around the world. They use a monetary measure to compare the level of public sector funds expended on agricultural research and extension programs.

Between 1961 and 1966, 295 extension staff members from 33 states served in 31 different countries.⁶ This comparison of investment by world geographical regions is presented in Tables 2 and 3.⁷ Total investment in constant U.S. dollars more than doubled from 1959 to 1974. See Table 2. The greatest expenditures were in North America and Oceania (Canada, United

*Note: An excellent reference detailing this technical assistance thrust is *Building Institutions To Serve Agriculture*, a summary report of the Committee on Institutional Cooperation, Agency for International Development Research's project on rural development. The report was published by Purdue University, LaFayette, Indiana, 1968.

States, Australia and New Zealand). Latin American countries expended the least amount.

Table 3 compares expenditures for both research and extension service in terms of man years. These investments average more per man year in North America and Oceania than in Asia where salaries are low and available equipment extremely limited. Expenditures in North America and Oceania are nearly four times as much in research and more than 10 times as much in extension service than expenditures for the same things in Asia.

Table 2
Expenditures on Agricultural Extension by Region 1959-1974

| REGION | Total Expenditures in Millions of 1971 Constant U.S. Dollars | | | |
|---------------------------|---|-------|--------|--------|
| | 1959 | 1965 | 1971 | 1974 |
| Western Europe | 99.4 | 169.5 | 196.6 | 183.3 |
| Eastern Europe and USSR | 128.0 | 90.0 | 230.0 | 250.0 |
| North America and Oceania | 163.1 | 198.4 | 263.5 | 287.6 |
| Latin America | 32.4 | 51.1 | 102.8 | 121.9 |
| Africa | 90.7 | 161.0 | 217.0 | 224.5 |
| Asia | 73.2 | 160.0 | 249.5 | 258.5 |
| World Total | 586.8 | 930.0 | 1259.4 | 1325.8 |

Table 3
Research and Extension Expenditures Per Manpower Unit

| REGION | Research Expenditures per Scientist Man-Year | | | |
|---------------------------|---|--------|--------|--------|
| | 1951 | 1959 | 1965 | 1971 |
| Western Europe | 16,870 | 18,831 | 19,762 | 19,871 |
| Eastern Europe and USSR | 8,816 | 9,198 | 9,492 | 9,765 |
| North America and Oceania | 21,139 | 23,497 | 28,569 | 32,431 |
| Latin America | 18,630 | 20,734 | 17,193 | 15,887 |
| Africa | 16,233 | 18,135 | 33,532 | 23,542 |
| Asia | 5,159 | 5,156 | 8,936 | 9,739 |

| REGION | Extension Expenditures per Extension Worker | | | |
|---------------------------|--|--------|--------|--------|
| | 1951 | 1959 | 1965 | 1974 |
| Western Europe | -- | 6,217 | 7,916 | 7,651 |
| Eastern Europe and USSR | -- | -- | -- | -- |
| North America and Oceania | -- | 12,010 | 14,035 | 17,096 |
| Latin America | -- | 10,243 | 10,040 | 8,331 |
| Africa | -- | 3,160 | 3,500 | 3,406 |
| Asia | -- | 843 | 1,340 | 1,663 |

The research by Boyce and Evenson reveals that international technical assistance provided roughly 40 percent to 50 percent of the funding (perhaps as much as \$48 to \$55 million) for development of agricultural research

systems in the 1950s. This declined to 20 percent by 1951, but the funds probably reached \$70 million. Technical assistance for extension service probably approached the 20 percent funding level in the 1950s, but it was nearly zero by 1971.⁸

The Key: Reaching the Small Farmer

Up to two-thirds of the people in most developing countries live and work in the rural areas. Most of them depend on agriculture for their livelihood as either laborers, tenants, landowners or employees or owners of agriculture-related industries.

The incomes of these people are very low, usually under the averages for their respective countries. Most live and work at the poverty level with little hope for more than minimal education, food, health care and housing.

The small farmer is the key to any widespread or significant increase in production. Hundreds of millions of them are at work around the world. Many live in remote, hard-to-reach mountain villages and jungles where roads are often inadequate for the movement of production inputs or surplus exports. Communication of market prices and other useful information is limited.

This is the situation faced by extension workers in virtually every developing country. Researchers are faced with the task of producing high-yield crops that are responsive to high levels of fertilization and more resistant to diseases and insects. They must combine such hybrids with better cultivation and crop protection into a realistic package of improved practices that the farmer, with his limited scientific knowledge and access to production inputs, can put to use in return for higher yields.

The extension worker is responsible for contacting farmers, convincing them of the value of a package of improved practices and teaching them how to implement the new ideas. This task is so complex and the farmers so numerous that results seldom equal ideal expectations and often fall far short of goals.

Necessary: A Commitment

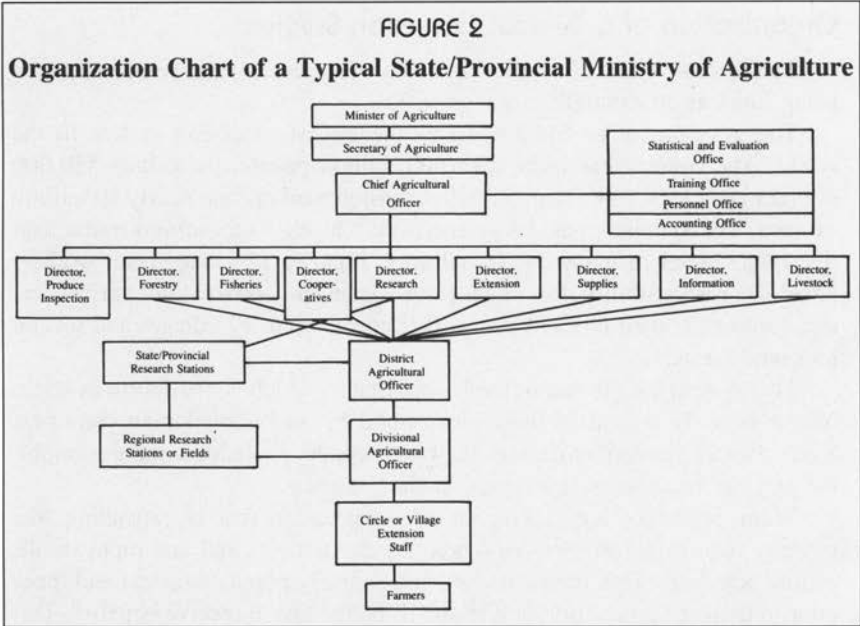
Defining strategy, listing essentials and offering suggestions are relatively easy. A more difficult task is the development of a long-term plan that encompasses a strategy and aims at securing the essential ingredients. The most difficult, of course, is the successful implementation of a plan, especially when available resources are limited. Planning and implementation go far beyond the agricultural sector of an economy. Programs of education, health, industrial development, national defense, social welfare and more must be included in a nation's overall growth plan.

Before any real progress can take place, a national government and its leaders must make a commitment to agriculture and the broader area of rural development. This commitment must take high priority and be allocated sufficient resources to get the job done.

Recently, such commitments were seldom made. If one was made, it ranked low on the government's priority list or was denied adequate resource support. This can be illustrated by several examples. After gaining independence in 1947, India gave first priority to industrial development in a series of five-year plans. Tremendous energies and resources went into this effort at the expense of agriculture, the backbone of the country's economy for centuries. The result was a severe food shortage in the 1950s and 1960s. A similar situation occurred in Nigeria after it gained independence in 1962. The result is current food shortages that have forced a recent switch in priorities to food production and expansion of the nation's transportation system.

Cooperation and Coordination Between Research and Extension is Essential

The effective and close relationship between extension service and research in the United States dates from the inception of the land-grant college system. Such cooperation and coordination seldom exist in developing countries, even though it may appear to be so from the organizational chart of a typical ministry of agriculture. See Figure 2.



Some ministries will list more action agencies in their organizational charts, others fewer. Some will show more operational levels that lengthen the chain of command and communication channels, and others fewer. Directors of the various agencies all command the attention of the district agricultural

officer. Other terms may be used to describe this position which supervises a subgeographical area of a state or province.

Assuming that these directors continually communicate with each other and that the chief agricultural officer functions as a coordinator, a sound agricultural development program would be insured. Unfortunately, this does not automatically occur. Various directors compete for the attention of the chief officer, the district officers and so on down the line.

The obvious distinction between this typical organization and extension service in the United States is the multifunctional role of field extension workers in their contacts with local leaders and farmers. Extension agents in the United States restrict their role to that of a teacher-educator and adviser. The typical worker in most developing countries must fill the educational role, take charge of supplies, credit, machinery hire and inspection and act as cooperative organizer or even secretary. Sometimes such workers are even asked to conduct local field trials for the research arm of the ministry. These complex duties detract from an extension worker's influence as an educator and reduce the number of people effectively served. This dilution of effort clearly hinders the effectiveness of the individual extension worker. In addition, many are inadequately trained and underpaid.

Organization of a Typical Extension Service

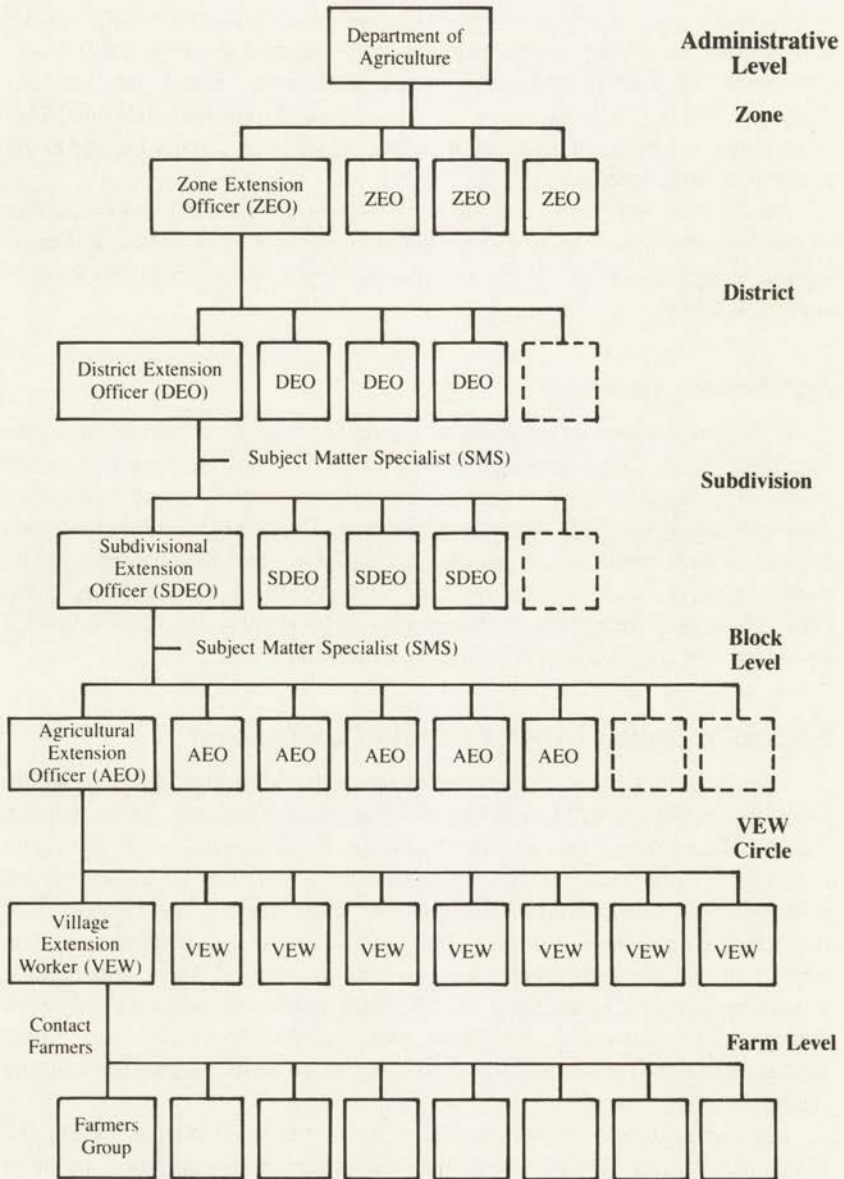
The extension arm of a typical ministry of agriculture can be illustrated by using India as an example. See Figure 3.

The government of India operates the largest extension system in the world. The country has more than 600 million people, more than 550,000 villages and cities, more than 50,000 extension workers and nearly 80 million farmers. The foundation of this system is the "block"—an administrative unit that might cover as many as 100 villages. Eight to 12 village-level workers have the responsibility for conducting extension service and agricultural development in their block. Each worker covers up to 10 villages and several thousand farmers.

This system dwarfs that of the United States, which is one-fourth as large. Yet, it is fairly typical of those established by many developing countries. Even after 25 years of existence, the block system excludes some geographical areas in India because of unavailable resources.

When resources are lacking in an organization that is expanding, the strategy is to establish services where the most substantial and rapid results can be achieved. This means remote and sparsely populated areas and those poor in terms of production potential will be the last to receive benefits. This is unfortunate, but a cold, hard analysis of the situation leaves no other option. Virtually every developing country has been or still is faced with such a predicament.

FIGURE 3
Organization Pattern of Intensive Extension Service
in One of the States in India



Mosher, A.T. *An Introduction to Agricultural Extension*. New York: Agricultural Development Council, 1978.

Supporting Activities

Education is the central activity of any extension organization, but it cannot be accomplished without considerable support. A continuously upgraded system of in-service training and cooperative, responsive research agencies are two helping arms for extension agents who must carry out the educational role. Another supporting activity required is the production and distribution of teaching materials, including bulletins, newsletters, demonstration teaching kits, leaflets, posters, slide sets and informational films. This support is often found in the form of an information unit usually located at the national or state level.

Another support function is the analysis, experimentation and evaluation of teaching methods. Assistance in program development is also required. Again, an agency or unit at the national or state level provides this kind of support the best.

Agri-Service Center

A delivery system of agricultural inputs for farmers is incorporated into variations of an "Agri-Service Center" in Egypt, Taiwan, Israel and elsewhere. The basic purpose of such a center is to assemble in one location all the inputs the agricultural community requires. These include tools, machines to rent or buy, fertilizer, livestock feed additives and medications, seeds, extension agents, credit institutions, and where practical, agricultural research staff. The size of the center and the number of its supporting staff is dictated by the size of the area it serves and the needs to be met.

How to Improve Cooperation and Coordination

The coordination and cooperation of research and extension groups within a ministry or department can be improved in a functional way. To accomplish this, problem-solving, task-oriented teams can be appointed to work jointly on a crop or in a geographical area. Team members, including both research and extension personnel, would mutually support each other as they carry out their respective assignments. Research staff would serve as resource persons when the extension field members met a problem beyond their capabilities. Researchers would open their experimental plots and fields to extension workers and encourage them to bring groups of farmers to view their work. Researchers could serve as visiting instructors to nearby extension training schools.

In return, extension workers could supervise verification trials on farmers' fields to test and further check the recommendations proposed by their research counterparts. They could supervise and increase plots grown by farmers at the suggestion of the researchers. They could communicate problems faced by the farmers directly to their counterparts to speed up departmental reaction. The headquarters of these two departmental agencies

could be combined at a research station. This would save considerable duplication of facilities, equipment and clerical staff.

This approach is not new or unique. Such coordination does exist, but it is not widely practiced. Too often the research and extension directors are too absorbed in advancing the interests of their agencies to respond to such suggestions. This is unfortunate because an increased level of cooperation and coordination would benefit all parties involved. Best of all, it would pay off in greater dividends for the intended and ultimate beneficiary—the farmer.

Adequately Trained Personnel Are Essential

One of the most essential requirements in a developing extension service is sufficient numbers of well-trained personnel. Few developing countries meet this important criterion. The saying, “a chain can only be as strong as its weakest link,” is true for any organization. If the field staff is weak, program delivery is poor. If specialists and administrators do not support the field staff, efficiency and effectiveness are reduced.

The problem of insufficient numbers of well-trained personnel may be the biggest impediment to a rapidly developing national extension service. This is not so much criticism as it is a statement of fact. It takes a minimum of 15 to 25 years for any extension organization to develop a viable operation. This assumes political stability and strong support and commitment to such an effort from the government. These factors, however, are often lacking in rapidly developing countries. Also, it takes time for an organization to sort out administrative and operational procedures, to develop strong communication facilities, to recruit and train personnel in dozens of specialized fields and to build morale.

Most developing countries recruit their extension staffs directly from elementary or secondary schools and then provide them with one to two years of specialized training in agricultural production and extension methodology. A large majority of these recruits are from towns and cities and lack the feel for agriculture that is gained by recruits living and working in rural areas. Compare this situation with developed countries where people who already possess the basic knowledge required for extension service are employed for the task. These people are ready to perform a creditable job after only a few days, or at the most, a few weeks of orientation and induction training.

Three other factors usually complicate this already difficult situation in developing countries. One is rapid job turnover. Job opportunities for well-trained personnel are numerous in both the public and private sectors of agriculture and related areas. Many times the extension services are fertile recruiting grounds. Another factor is rapidly growing extension and research agencies. Recruitment and training activities just cannot keep up with the demand. The third complication, and one built into the situation, is the need to provide a strong and continuous in-service training program for experienced workers. The more successful an operation becomes the greater is its

demand. As farmers upgrade their practices and new research information becomes available, extension personnel are expected to keep pace. Around the world the complaint is "farmers and homemakers are demanding more than extension service can provide."

Training extension workers is not an easy task. Assembly line workers or lab technicians can be trained to carry on specialized but limited skill jobs in a relatively short period of time. This is not the case in extension service. According to Mosher, every worker needs at least five kinds of understanding:

- an understanding of crop and livestock production;
- an understanding of farming as a business;
- an understanding of agricultural development;
- an understanding of farmers and how they learn;
- an understanding of rural society.⁹

Imparting these skills can take several years. Then they have to be practiced before an extension worker reaches the competency level necessary to become truly effective.

The need for these understandings were reinforced by Onazi's recent research in northern Nigeria where extension workers identified their training needs. Listed in order of importance, they were

1. technical knowledge in agriculture;
2. extension philosophy, organization and administration;
3. communications in extension service;
4. program planning;
5. use of research methods and evaluation of extension programs;
6. educational process and human development;
7. understanding of sociological factors.¹⁰

Areas of training needs identified around the world are similar. Resource availability of ready-to-work personnel is another matter. No short-term solution for recruitment exists, and education is a lengthy process. As an extension service grows it compounds the basic problem through promotions and short-term tenure in any position.

Extension Service Needs to be Revitalized

What is needed is a revitalization of extension services in most countries. To bring about a rejuvenation, Benor and Harrison suggested:

- reorganize government operations and transfer full administrative control of field-level extension agents to the Ministry/Department of Agriculture;
- instruct all extension personnel to devote all their time exclusively to professional agricultural extension work;
- organize a systematic program of in-service training and visitation;
- concentrate efforts to achieve a clear, visible impact and continued progress. This concentration refers to a few crops that will bring the best economical results, a manageable geographic area and, initially, a select group of responsive farmers;
- link extension service to a vigorous and highly applied research program;
- carefully define the supply and credit needs and convince public and private sector agencies that they must make them available.¹²

Field workers are often frustrated by factors beyond their control that lead

to morale problems and excessive turnover rates. They usually are assigned too large an area, lack sufficient transportation to efficiently cover it, must satisfy more than one boss, must spend time on activities other than extension service, lack sufficient ties with their research counterparts and receive inadequate training.

It has long been recognized that extension workers in developing countries are underpaid. This is not unique because salary levels are usually low in all sectors of such economies. But in view of their multifaceted responsibilities, hardships during travel, assignment to remote areas where accommodations are inadequate, limited promotional opportunities and low salary, it is easy to understand why such workers lack enthusiasm for the job at times.

Even with all these frustrations and complications, most extension workers are dedicated to their job. They receive satisfaction when a farmer or his family accept advice, and as a result, upgrade their quality of life.

A revitalization of extension service that focuses on removing some of these frustrations will certainly make field workers more effective and much more content with their profession.

National Development Plan

Even the best extension education network would fail if it were not integrated into a national development plan that covers all sectors of a nation's economy and social framework. Some such master plans implemented in a few countries have not fared well, especially in the agricultural sector.

The situation is not hopeless, however. Some of the marks of a competent, dedicated, enthusiastic and confident extension worker are patience, confidence and an optimistic outlook. Such spirit is contagious as it is communicated to colleagues and cooperators. Willingness to work with administrators and subordinates alike will go far in the development and implementation of a sound program.

There are obstacles, but a few are more imagined than real. Some say the low literacy rate prevailing in rural areas among farm families is a major hurdle to jump. No correlation exists between literacy and the willingness to accept an improved or new method, but the job may be harder because of this fact. Some experiences indicate that it is more difficult to get a colleague to accept a new idea than to get farmers to accept change.

While the forms of extension organizations vary tremendously, their functions remain basically the same. That is because the foundation of a sound, progressive and growing economy is basically the same everywhere—commitment to extension service at the national policy level and the recognition of agriculture and its millions of small farmers.

Extension Education is Exportable

Many critics of technical assistance point out that extension service as a system cannot be uprooted from one country and planted in another. Social,

political and cultural differences make transplanting extension service as it is known in the United States a difficult endeavor. In the 1950s some attempts to do so met with failure. What was learned from this, however, is still significant. The sound, basic ideas of extension education are being adopted throughout the world but in the context of each country's specific heritage and customs.

What are these sound, basic ideas? They include a strong responsive institutional base, the problem-solving approach and involvement of local officials and leaders in the planning and implementation of extension programs and activities.

Extension personnel must never lose sight of the ultimate objective of extension service, which is the development of people. Once community citizens gain insight into their basic problems and sense the solutions, they will take great satisfaction in moving ahead.

Has Extension Failed Internationally?

Extension services no doubt have weaknesses, but what would have happened if a strong international push for extension service was not made 30 years ago? World hunger is a grim reality today, but the problem would be far worse without extension education at work.

Still, the only way to grow stronger is to admit weaknesses and then go on. Extension services have three general problems:

- farmers lack confidence in extension workers;
- changes lacking sufficient research data are advocated and thus often fail;
- social or economic incentives are not sufficient to influence change.

Extension Service's Role

Extension service's role is to motivate farmers, homemakers and youth to produce more and to improve their homes by showing them how. Extension activities impart knowledge, upgrade skills, and promote an attitude toward progress. Extension workers enhance communication by demonstrations. They serve as liaison and buffer between local people and high-level government officials by presenting a realistic view of a prevailing situation. They can show local leaders and cooperators that their government is concerned with their welfare. They continuously help to develop leadership through example, guidance and training, thus increasing their clientele's ability to overcome their own problems.

Notes

¹Brown, Lester. *The Twenty-Ninth Day*. New York: Norton and Company, 1978.

²⁻³Wortman, Sterling, and Ralph Cummings, Jr. *To Feed This World*. Baltimore, Md.: The John Hopkins University Press, 1978.

⁴Mosher, A.T. *Getting Agriculture Moving*. New York: Agricultural Development Council, 1966.

⁵⁻⁶*Extension International: People and Food*. ECOP, The Cooperative Extension Service, South Dakota State University, South Dakota, 1967.

⁷⁻⁸Boyce, James K., and Robert Evenson. *Agricultural Research and Extension Programs*. New York: Agricultural Development Council, 1975.

⁹Onazi, D.C. "Comparative Analysis of the Training Needs of Potential Agricultural Extension Workers and Principle Problems of Extension In The Northern States of Nigeria." Unpublished Ph.D. dissertation, Kansas State University, Manhattan, Kan., 1973.

¹⁰Benor, Daniel, and James Q. Harrison. *Agricultural Extension: The Training and Visit System*. Washington, D.C.: World Bank, May 1977.

10



Agricultural Extension Programs

This is the first of four similar and consecutive chapters outlining extension service's four major program areas from the late 1940s to the early 1980s.

Agriculture is the base on which rests the strong and diverse economy of the United States. Agricultural production steadies the nation during peace or war, in good times or bad. Some people in the United States feel that agriculture is not as important today as it was a few decades ago, but Orville Freeman, a USDA secretary, wrote in his 1968 report to President Johnson, "United States agriculture is growing in importance, not declining."

An abundant supply of agricultural products contributed greatly to economic growth in the United States. Throughout history agricultural production outmultiplied the population. Today, one farmer feeds himself and 77 others. That is up dramatically from the 25 others he fed 30 years ago. Overall productivity continues to increase, and until very recently, real costs per unit of output steadily declined for nearly a century.

This rising productivity contributed to economic development in other sectors. The abundant amounts of food and fiber at relatively low costs freed workers from farm labor for employment in other industries, served as a source of capital for nonfarm industries, provided a major market for industrial goods and services and earned large sums of foreign exchange through exports, especially since World War II.

Agricultural historians categorize this growth in three periods:

- the years prior to 1920 when expanding number of farm acres and increasing amounts of labor and capital accounted for increases in production;
- the years between 1920 and 1935 when agricultural output increased slowly because incentives for expanding production decreased, farm prices dropped and the total farm labor force declined;
- the late 1930s to the present when higher consumer prices, greater

consumer demand, increased spending for capital items and a tremendous increase in technology and research heightened agricultural productivity.¹

Naturally, the growth of agriculture influenced the strategy and development of agricultural education. John Jenkins, in *Historical Overview of Extension*, explained how extension education kept pace.² He divided extension endeavors into seven eras that show how agricultural extension programs evolved, developed and expanded over time.

The seven eras include:

1. **1862 to 1914**—Agriculture was recognized to be a profitable and efficient business. Industrialization was emphasized.
2. **1914 to 1920**—This was a time of growth. Public awareness and acceptance of agriculture increased as organizational structure strengthened in response to the demands on agriculture caused by World War I.
3. **1921 to 1929**—Extension service and agriculture were on their own. Little direction was available from federal and state levels.
4. **1930 to 1941**—This was a period of retrenchment. Extension service accommodated itself to both the national program directions and to the new trend toward local citizen advisory committee activity.
5. **1941 to 1946**—Extension service gained wide exposure as the economy was committed to maximum production of food and fiber. The training of local leaders to assume leadership positions took on a major emphasis.
6. **1947 to 1960**—This was a period of adjustment to rapid technological advances. Agricultural programs expanded in scope and focused attention on individuals, the family and small groups.
7. **1961 to Present**—Extension service continued to expand its scope. Societal conditions called for a dual program emphasis that met the concerns of middle-class Americans as well as the disadvantaged.

The Cooperative Extension Service takes great pride in being a part of this agricultural revolution, but two points must be stressed. First, the Cooperative Extension Service cannot take all the credit for the achievements in agricultural production. Strong research, teaching, industrial and agribusiness components were and are essential. Secondly, U.S. agriculture would have progressed without extension service but certainly not as rapidly.

Definition and Description of Extension's Agricultural Programs

Extension service and its personnel extend into every phase of agriculture. Researchers' duties range from conducting experimental trials on farmers' fields to writing and speaking to interpreting facts on public policy issues affecting agriculture. Agents provide advice on a variety of topics from growing asparagus in a kitchen garden to the effect of zinc on corn production over hundreds of acres. Specialists cover the total spectrum of subjects from agronomy to zoology.

Interdisciplinary programs are conducted by teams of specialists that might include animal scientists, engineers, economists, agronomists and veterinarians. Specialists and agents work across program lines through involvement in 4-H, home economics and community resource development

activities and projects. They judge livestock shows, present radio programs, write bulletins and newspaper columns, appear on television, teach in the feedlot or field by conducting how-to-do-it demonstrations and serve as international consultants in their area of expertise.

Agricultural extension staff are supported by information, program and staff development specialists at the state level, as are staff in the other three major program areas. They work closely with radio, television and film producers in converting complex, technical material into meaningful messages. Specialists work with extension information editors in writing bulletins, pamphlets, leaflets and newspaper releases. County staff work with thousands of newspaper editors and reporters across the country to get practical and useful information into homes in every county and city in the nation.

An analysis of manpower devoted to various phases of the agricultural program for the five years between and including 1971 and 1975 appears in Table 1. During this period of little change, crop production efforts received the most attention. Environmental and natural resource concerns received less than 10 percent of the time devoted to crop production, or about 4 percent of the total time. Some states, for purposes of organization and emphasis, differentiate between agriculture and the production and conservation of natural resources (forests, water, minerals, soil).

TABLE 1
Extension Professional Resources Expended by Personnel
at the State and County Levels in Agriculture, 1971 to 1975

| Program Components | Staff Years by Year | | | | | 5-year increase in % |
|---|---------------------|--------------|--------------|--------------|--------------|----------------------------|
| | 1971 | 1972 | 1973 | 1974 | 1975 | |
| Crop Production | 2,582 | 2,409 | 2,750 | 2,796 | 2,851 | 10 |
| Livestock Production | 1,730 | 1,617 | 1,683 | 1,629 | 1,828 | 6 |
| Business Management | 927 | 822 | 846 | 863 | 919 | 0 |
| Agricultural Marketing and Farm Supply | 679 | 628 | 678 | 630 | 607 | -11 |
| Environment and Natural Resources | 260 | 262 | 266 | 269 | 270 | 4 |
| TOTALS | 6,178 | 5,738 | 6,223 | 6,187 | 6,475 | 9 |

Cooperative Extension Programs. Extension Service, USDA, Washington, D.C., June 1976.

The 9 percent increase in staff resources (nearly 2 percent per year) ranged from plus 10 percent in crop production to minus 11 percent in agricultural marketing. These staff changes reflect the increased domestic and worldwide demand for food and feed grains as well as the broader concern for environmental protection and resource conservation.

The distribution of staff years by program component for Arkansas is

given in Table 2. In this state agriculture consumed 47.4 percent of the professional staff time in 1982. Other staff time was divided as follows: 24.3 percent for home economics; 21.6 percent for 4-H; and 6.7 percent for community resource development. The percentage of time devoted to agriculture or one specific area will vary among states depending on agriculture's overall importance to the state and the rural to urban population mix.

Agricultural Programs: A Chronological Overview

The federal administrator of extension service claimed in his fiscal year 1968 report to the USDA secretary that county agents visited one out of every three farms (approximately 8 million farms existed at that time) and that four out of every five farm families in the United States adopted at least one new recommended practice. He further reported that more than 8.75 million people visited county extension service offices and that county agents arranged more than 11,000 farm and home tours for more than .5 million people and conducted 1.5 million meetings.³ A 1979 survey reveals a more current picture:⁴

A Profile of Clientele Served by County Agricultural and Natural Resources Extension Staffs

This national summary is the result of a combined rural-urban sample of 562 counties. It was compiled by Paul Bonell, program analyst, Extension Service, USDA, and Duane Erickson, agricultural economist, University of Illinois, with assistance from several state directors and their staffs. The data represent estimates of individual county agents. No clientele were directly surveyed.

- Sixty-one percent of farm adults were served by agriculture and natural resources extension service programs. For all adults, the survey suggests 24 percent.
- Sixty-nine percent of farmers with agricultural products valued at \$2,500 or more were served in the combined rural-urban sample.
- The county agricultural agent spends the majority of his time with three groups of clientele: commercial family farmer (34 percent), small and low resource farmers (21 percent) and suburban homeowners (11 percent).
- More than 50 percent of the counties ranked beef, corn, swine, dairy and soybeans as major crops grown in their county. Beef was ranked as a major commodity in 86 percent of the counties returning surveys.
- Use of various methods to reach clientele shows the mass media continue to be important in disseminating agricultural information. In the rural counties, commercial family farmers are best reached in this order: (1) direct mail newsletters (69 percent); (2) news releases (63 percent); (3) radio and television (60 percent); (4) magazines (57 percent); (5) bulletins and publications (51 percent). The percentage of small and part-time farmers reached was 10 percent to 20 percent lower with newsletters; the highest was at 58 percent.

This is a far cry from the 1915 report which showed 1,136 out of 2,920 counties had an agricultural agent and all agents made 612,255 visits, sponsored 16,010 meetings and received 203,617 farmers in their offices. Farmers' institutes, however, were still popular at that time. In 1914, 3.2 million people attended 9,059 institutes funded with a federal budget of \$338,999, but this was only part of the total extension outreach effort.⁵

TABLE 2
 Expended Professional Staff Years
 by Program Area in Arkansas for Fiscal Year 1982

| Program Components | Program Area | | | | | | | | | |
|--------------------------------|---------------------------------|-------------|--------------------------------|------------|----------------|-------------|-------------|-------------|--------------|------------|
| | Agriculture & Natural Resources | | Community Resource Development | | Home Economics | | 4-H | | TOTAL | |
| | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1. Crop production | 110.8 | 63.6 | | | | | 1.3 | 1.6 | 112.1 | 30.5 |
| 2. Livestock production | 32.7 | 18.8 | | | | | 7.8 | 9.9 | 40.5 | 11.0 |
| 3. Bus. mgt. & economics | 10.8 | 6.2 | .5 | 1.9 | | | .6 | .8 | 11.9 | 3.2 |
| 4. Agr. mkg. & farm supplies | 7.7 | 4.4 | | | | | .2 | .3 | 7.9 | 2.1 |
| 5. Natural resources | 9.1 | 5.2 | 1.5 | 6.3 | | | 2.1 | 2.6 | 12.7 | 3.5 |
| 6. Mech. sc., tech. & engr. | .9 | .5 | | | | | .5 | .6 | 1.4 | .4 |
| 7. Safety | 1.6 | .9 | | | .5 | .6 | 1.1 | 1.4 | 3.2 | .9 |
| 8. EFNEP-Fed. funded | | | | | 7.4 | 8.3 | 6.0 | 7.5 | 13.4 | 3.6 |
| EFNEP-Non-Fed. funded | | | | | | | | | | |
| 9. Food and nutrition | | | | | 16.4 | 18.4 | 2.6 | 3.3 | 19.0 | 5.2 |
| 10. Pers. & fmly. res. mgmt. | | | | | 9.3 | 10.4 | 1.4 | 1.7 | 10.7 | 2.9 |
| 11. Family life, etc. | | | | | 6.5 | 7.3 | 20.5 | 25.8 | 27.0 | 7.3 |
| 12. Textiles and clothing | | | | | 9.3 | 10.4 | 1.2 | 1.5 | 10.5 | 2.9 |
| 13. Human health | | | .2 | .9 | 3.1 | 3.5 | .9 | 1.1 | 4.2 | 1.2 |
| 14. Housing & home environment | | | | | 13.8 | 15.4 | .2 | .3 | 14.0 | 3.8 |
| 15. Leadership development | .2 | .1 | 4.3 | 17.6 | 17.9 | 20.0 | 12.2 | 15.3 | 34.6 | 9.4 |
| 16. Org. devel. & maintenance | .5 | .3 | 9.6 | 38.6 | .3 | .3 | 18.4 | 23.1 | 28.8 | 7.8 |
| 17. Comp. comm. planning | | | .5 | 1.9 | .1 | .1 | .1 | .1 | .7 | .2 |
| 18. Comm. serv. & facilities | | | 2.0 | 8.2 | | | .2 | .2 | 2.2 | .6 |
| 19. Ec., mpwr. & career dev. | | | 4.5 | 18.3 | | | .3 | .4 | 4.8 | 1.3 |
| 20. Govt. oper. & finance | | | 1.5 | 6.3 | | | .1 | .1 | 1.6 | .4 |
| 21. Leisure & cult. education | | | | | 4.7 | 5.3 | 1.8 | 2.4 | 6.5 | 1.8 |
| Total by Program Area | 174.3 | 100 | 24.6 | 100 | 89.3 | 100 | 79.5 | 100 | 367.7 | 100 |
| Percent by Program Area | | 47.4 | | 6.7 | | 24.3 | | 21.6 | | 100 |

Farmers' institutes began a rapid decline when extension service was finally organized as a federally supported activity.

Bankhead-Flannagan Act, 1945: When World War II ended, the wartime emergency funds allocated for extension work ceased. In an effort to fill this gap and to expand the scope of extension work, the Bankhead-Flannagan Act was passed. The act increased the amount of funds available for extension service, retained the distribution of funds based on the percentage of the farm population in each state, allocated 2 percent of total funds for the administration of Extension Service, USDA, and authorized the secretary of agriculture to allocate 4 percent to meet special needs in certain areas of the states.

Agricultural Marketing Act, 1946: This act recognized long after the fact that extension faculty were deeply involved in providing information related to the marketing of agricultural products. Additional and special funds were authorized for extension service's use outside the normal, traditional Smith-Lever formula funding. The act enabled extension service to further expand the scope of its activities into the marketing, transportation and distribution of farm products.

States were still required to supply matching funds. The provisions of this act relating to extension service were deleted beginning with fiscal year 1976, and funding was transferred to regular Smith-Lever formula payments under Section 3(b).

This act significantly affected the build-up of extension service's expertise in agricultural economics and laid a foundation for future substantial growth.

Clarke-McNary Act Amendment of 1949: The Clark-McNary Act Amendment of 1949 was an extension of the original 1924 act that provided matching funds to states for farm-forestry work. It enabled the Cooperative Extension Services, through the land-grant universities, to slowly expand their education and demonstration programs in establishing, renewing, managing and protecting farm wood lots and in harvesting, marketing and using forest products.

Smith-Lever Act Amendments of 1953, 1955, 1962 and 1972: Nine acts relating to extension service were simplified and consolidated into one act—the Smith-Lever Amendment of 1953. This amendment authorized Congress to increase annual appropriations without special authorization. It instructed that future funds would be based on the decennial census. It also changed the allocation of funds to: 4 percent for special need; 48 percent to the states according to rural population and 48 percent to the states according to farm population, subject to matching funds by the states.

The 1955 amendment to the Smith-Lever Act earmarked appropriations for work with farm families in disadvantaged areas. This allocation was outside the traditional funding formula and marked a significant departure from the past. It also opened the door for federal administrators to allocate funds under Section 3(d) of the act. Section 3(d) funds were established in the 1953 Amendment, but until 1961 it was interpreted that those funds were for

administrative use at the federal level. In 1961 this authorization was used to provide \$700,000 for area agents in community and resource development. In 1965 Section 3(d) was again used to distribute \$2.1 million for pesticide chemical programs and \$177,500 for special extension activities in Appalachia.

The 1962 amendment merely changed the allocation of formula funds to: 4 percent for federal administration needs; 20 percent to be divided equally among the states; 40 percent to be distributed according to each state's rural population; and 40 percent to be distributed according to each state's farm population.

For fiscal year 1967 the federal administration requested that Congress redirect in its budget proposals \$9.6 million from formula funds to \$6.7 million for special work in resource development and \$2.9 million for low-income family work. Extension Committee on Organization and Policy (ECOP) opposed this move because it did not want such large funds to be allocated by the administrative branch. Congress sided with ECOP. By 1968 only funds provided by the Agricultural Marketing Act (dating from 1946) were distributed outside the funding formula, i.e. Sections 3(b) and 3(c). Under a new Section 10 the 1972 amendment designated the Virgin Islands and Guam as states for extension purposes.

A Proposal for Distribution of Federal Revenue Sharing Funds

In its 1971 annual budget message the federal administration proposed that all money for Cooperative Extension Service, as well as several other selected agencies, be placed in a special revenue-sharing fund that would be given to each state's governor for allocation. ECOP also opposed this because it felt this would destroy the federal-state-county partnership and jeopardize extension service's freedom from political interference, a principle in operation since 1914. Congress again sided with ECOP.

Situation in 1979

Despite confrontations between the states (as represented through ECOP) and the federal administration, formula funds lost ground. In 1954 formula funds amounted to 98 percent of federal payments to the states. By fiscal year 1978 this figure dropped to 56 percent.

Other developments affected funding and programs of the Cooperative Extension Service. Under the 1972 Rural Development Act, Title V and the Energy Extension Act of 1978, funding grants were allocated to the states for administrative organization and control. In effect, this made it possible for any institution of higher learning or state agency to compete with the land-grant university for such money. Thus, the land-grant institutions are no longer the only institutions in the states conducting extension programs.

Agricultural Extension Programs in the 1980s

Today's mission of agricultural and natural resource programs continues to be what it was in the past—to provide an adequate supply of food and fiber for consumption and export by the United States. More emphasis, however, is placed on conserving natural resources and reducing soil erosion and sedimentation by water and wind. Management of animal wastes, water conservation and pollution control are strong concerns, especially in and near metropolitan centers and where irrigation is important. Programs to reduce energy consumption on the farmstead are receiving more and more attention. Minimum tillage is emphasized as energy costs remain high. Conservation of timber resources and new forestry planting programs in rural and urban areas are gaining importance as trees are recognized as a renewable energy source and aesthetically pleasing additions to the environment. Improved range management techniques to boost production per unit area are stressed.

Storing, marketing and transporting agricultural produce are and will continue to be priority farm management issues. Part-time and small farmers are receiving more attention at the expense of extension service's audience of large, commercial farmers. This is and will be offset by their adoption of sophisticated information-providing methods.

More pressures for expanding lawn and home gardening information service is felt from urban dwellers and the growing number of rural residents who are not farmers. Mass media is used to meet this demand because extension service's personnel resources are not increasing much.

Expanded crop protection programs based on ever-broadening research continue to be implemented. These programs now integrate chemical, cultural and biological control on a wide range of pests, weeds and diseases. Interdisciplinary activities initiated in 1973 are more efficient and effective. Unfortunately, they are also more costly as certain chemical and control methods are banned by legislation.

The chances that additional extension professionals will be added over the next decade are slim. Some shifting in emphasis will continue in response to changing program priorities. As a result, the use of paraprofessionals is likely to increase, especially in small farmer programs and in urban gardening and horticultural activities.

Priority Setting is Essential

Reviewing priorities will become essential in the years ahead. As inflationary trends continue, agriculture will come under heavier pressure because significant increments in federal funding cannot be expected. For example, federal funding for the Cooperative Extension Service increased only 11 percent from fiscal year 1976 to 1979, yet inflation rose by more than 20 percent. State and county appropriations were beefed up but barely enough to keep pace with inflation.

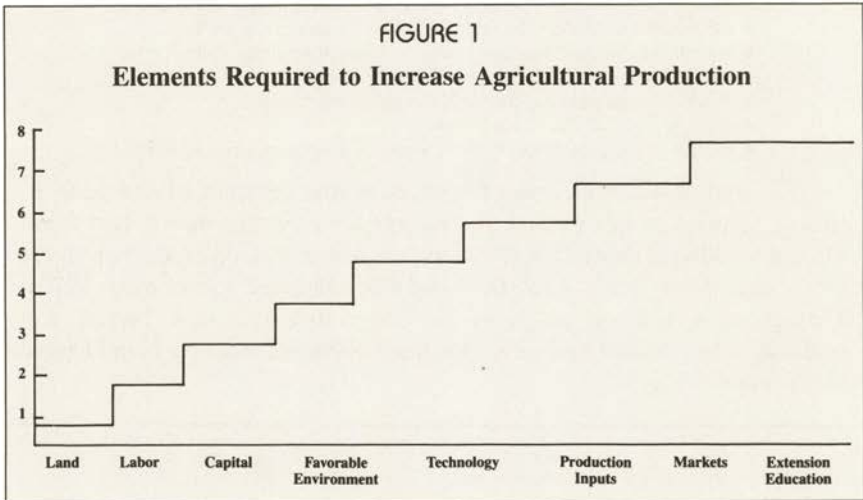
Thorough training in program development and evaluation will be required

as the need for priority setting intensifies. Better cooperation and coordination with other USDA agencies and agribusiness concerns will be essential. Extension service will have to concentrate more and more on its educational role, while other agencies assume more responsibility for service-oriented functions.

The need for expanded use of local advisory committees will require more attention. Studies reveal that agricultural agents use these committees less effectively than do their counterparts in 4-H or home economics. They can be extremely valuable in providing input for making decisions, establishing priorities, and later, helping the agent sell the program.

Wise Use of All Production Elements

Many more production elements other than the basics of land, labor and capital are involved in modern agriculture. These elements all have an impact on production output and efficiency. Extension education occupies a unique role. It is an element of production as well as a catalyst of all the other elements. Assigning values to each of the production elements in terms of how much they affect production is probably not possible, but showing relationships and needs for all the elements is possible. See Figure 1.



Naturally, the addition of a production factor does not add an increment of one, but this figure does illustrate the point. Without land, labor or capital the production process could not even begin. Each element beyond these three has the capability to add some incremental factor to production. The trick is to make optimal use of each element. Extension education is shown as the last element because it can have an effect on all the elements except the weather (environment).

A Commitment to a Growing Agriculture

The highlights of a 1974 ECOP report, “*Extension Education for a Growing Agriculture*,”⁶ are still relevant today. This report noted that farmers and the general public hold extension service responsible for providing necessary information and help to

- ensure adequate supplies of high-quality food and fiber for a growing population at reasonable prices;
- develop an agriculture that will return an equitable income to support occupations and strengthen individually owned farm operations;
- develop and maintain the United States’ comparative advantage in world trade of agricultural commodities to increase sales and to generate needed foreign exchange;
- conserve and develop natural resources;
- protect the quality of the environment;
- develop policies and programs at all levels which will ensure farm people fair representation and treatment;
- teach farmers with limited resources ways to earn enough money to adequately care for themselves and their families;
- provide the general public information about its growing agricultural industry.

To accomplish this, 10 recommendations were put forth:

- teach farmers to produce more;
- intensify and strengthen programs in productive agriculture;
- improve quality of information through interdisciplinary teams;
- build staffing patterns adapted to widely different agricultural audiences;
- use modern technology in extension service’s program delivery;
- build more effective working relationships with agencies, industry and private groups at federal, state and county levels;
- assume a leadership role in public policy development;
- develop an expanded resource base;
- involve more local people in determining extension service’s priorities.

U.S. agriculture has always responded to the demands placed upon it. History testifies to this through the emergency programs during two world wars, a worldwide depression in the 1930s, restrictions on production in the 1950s and 1960s and a great food and fiber shortage in the early 1970s. Through its agricultural programs the Cooperative Extension Service will continue to be a viable partner in this most important industry in the United States and the world.

Notes

¹For a detailed but brief assessment of this growth up to 1960, refer to *How the United States Improved Its Agriculture*, USDA, Economic Research Foreign Publication No. 76. Washington, D.C.: May 1964.

²Jenkins, John. “Historical Overview of Extension.” SEA-Extension, USDA, Washington, D.C. Unpublished mimeo, 1979.

³1968 Annual Report to the USDA secretary and the director of Extension Service, USDA, Washington, D.C., 1969.

⁴“Current Developments.” Letter from the administrator of Extension Service, USDA, Washington, D.C.: December 16, 1981.

⁵Report on Cooperative Agricultural Extension in the United States, Fiscal year 1915. From the director of States Relations Service, USDA, Washington, D.C., 1917. NOTE: The office of States Relations Service became the office of Cooperative Extension Work in 1923.

⁶*Extension Education for a Growing Agriculture*. Extension Committee on Organization and Policy, printed by the Cooperative Extension Service, Purdue University, Lafayette, Ind., February 1974.



Home Economics Extension Programs

This is second of four similar and consecutive chapters outlining extension service's four major program areas from the late 1940s to the early 1980s.

The family is society's most basic and viable unit. The socialization process begins within the family, and patterns of behavior and attitudes toward the varied aspects of life are developed there. Role models, morals, ethics and principles are assimilated from parents, siblings and relatives.

Influence and teaching within the family are the most critical factors affecting children's lives and their transformation into adolescents. Adults continue to grow and develop as they interact as family members.

The family and the home setting in which it thrives are under great stress in today's rapidly changing society. It is buffeted from all sides—economic, social, political, religious, technological—and eventually reflects the changing values and morals that result therefrom.

One of the Cooperative Extension Service's wisest acts was to recognize and accept the family and the home as a critical element that affects all the socioeconomic aspects of any society. Home economics extension activities are, quite simply, directed at the total family, its individual members and the home environment.

Definition and Description

The inclusive nature of extension home economics makes a proper working definition difficult to develop. Its subject matter content covers a broad range from food and food preparation to clothing to budgeting the family's economic resources to changing life styles to coping with inflation to conserving energy in the home.

The objectives of the overall program, as outlined in a special report, “*A People and A Spirit*,” are to

- enhance the quality of individual and family decisions and provide the skills to carry them out;
- increase the ability of the individual to interact effectively with others;
- help people learn to use community services and to take part in developing them;
- improve the social, economic and geographic mobility of the individual.¹

Considering these objectives, a definition of home economics extension then takes the following direction—an informal, educational program designed to reach family members, especially women, for the purpose of enhancing individual knowledge and skills so they can better and more quickly adapt to the demands of today’s rapidly changing society. More and more men are becoming involved in these activities.

Extension home economics encompasses the sum total of experiences that shape the mind, attitudes and aspirations of an individual. By the educational program’s very nature, it is concerned with the material aspects of a family and home, which are relatively easy to measure. But it also includes social, biological and psychological factors, which are relatively difficult to measure.

Initially, these programs were directed solely at families in rural America. This is no longer so, but it remains the major thrust. Individual and family problems know no geographical, class or ethnic boundary. Thus, home economics extension information, projects and programs must be available to families from all walks of life and economic levels.

Historical Development

Informal, educational programs for rural women are nearly as old as the farmers’ institutes, Cooperative Extension Service’s predecessor.² The role of women in agriculture was quickly recognized and catered to across the country. During the third year of the farmers’ institutes sponsored by the Kansas State Agricultural College, a lecture, titled “*Women’s Place in Agriculture*,” was presented. It advocated instruction for young women in the science and practice of domestic economy.³

This movement took nearly a generation to make headway for two obvious reasons. First, no women were trained in domestic science because such courses of study were not offered by higher education institutions of the day. Secondly, knowledge pertaining to domestic science subjects was scarce because a research base was lacking. Incidentally, these same obstacles existed in the development of agricultural programs.

Publications from farmers’ institutes, agricultural societies and colleges of agriculture included material for women. The first farmers’ institute bulletin prepared in 1887 by the University of Wisconsin contained information on butter making, fastening ends and binding edges (clothing construction) and education for farmers’ daughters.⁴

State agricultural colleges added domestic science departments in the

1870s. One of the earliest departments, established in 1873 at Kansas State Agricultural College, offered classes in sewing, dressmaking and millinery.⁵ By the 1880s a limited number of women specially trained in various domestic science fields presented information to other women who attended farmers' institutes. Many institutes offered special sections for women called cooking or sewing schools. Most states added women extension specialists to their young departments by 1910.

Organization of Women's Work, 1900 to 1917

As far as is known, the first domestic science association was organized in 1898 in several counties in Illinois for two reasons: 1) to teach the practice of better methods in homes and 2) to help introduce domestic science in the public schools.⁶ These associations were originally a section of the farmers' institutes. Later, they became known as Farmers' Institute Women's Auxiliary. Colleges began to fund special positions for women who would conduct lectures and demonstrations for these groups, just as agricultural college faculty were doing. By 1908, 21 states held women's institutes and seven others included women lecturers among their regular staff of institute speakers.

Early-day extension home demonstration agents realized that the most efficient way of working with rural women was through clubs. Annual meetings at farmers' institutes, during Farm and Home Week* or at institutes conducted in the outer parts of a state were inadequate to meet the demand. As the number of women employed by extension service increased significantly around 1912, the organization of these clubs spread rapidly.

Early-day home economists found that entry to the home and access to homemakers was greatly facilitated through work with girls' clubs. A major step forward in the southern states occurred in 1911 and 1912 when the General Education Board (a Rockefeller funded agency) supported home economists work with girls' clubs. The agricultural colleges also provided specialist assistance. One hundred and fifty-seven women with some training or experience in home economics were employed by the end of 1912 and became known as home demonstration agents.⁷ By 1913, the number of women agents employed reached 199. Officially, they were working with girls' clubs, but by this time many had formed women's clubs and had conducted regular meetings for several years. These agents gave talks on topics such as health, sanitation and nutrition and conducted method demonstrations on butter and bread making, dress construction, food preservation and cooking.

Agents working in the South numbered 418 by 1916. They organized 1,042 women's clubs which enrolled 22,048 members. These clubs often undertook community improvement projects and stressed the importance of teaching domes-

*Farm and Home Week included a week of on-campus sessions designed to update participants on new farm and home technology.

tic science in secondary schools.

In the northern and western states work with rural women proceeded much more slowly. Specialists from the state agricultural colleges still conducted their work primarily through institutes. Only four states, using state funds, employed women agents in 1915. New Hampshire employed the first women on cooperative funds in April 1916. Seventeen agents and 97 specialists were employed in the 33 states by June 1917. At the same time 520 agents were active in the southern 14 states.

True noted that specialists employed during the 1910 to 1915 period used several teaching methods: bulletins and circulars; single demonstrations and lectures given before organizations; personal visits to homes; home economics extension schools; home economics study clubs (approximately 1,350 in 33 states with 19,210 enrolled); and homemakers' tours.⁸

Emergency Programs, 1917 to 1945

Emergency programs put into operation during World War I rapidly accelerated home demonstration work. The Federal Food Production Act of August 1917 provided \$4,348,400 for further development of extension services. By the end of October 1917, 1,600 emergency agents had been employed. Six hundred were women and 1,000 were men. This brought the total extension service force to 5,000 staff members.

Home demonstration agents were placed in urban centers for the first time in 1917. Throughout the country the amount of vegetables and fruits grown and preserved multiplied dramatically. Home gardening during winter and summer and on the city and farm was greatly stimulated. The canning of fish, sea foods, wild game and domestic meat was encouraged. Great emphasis was placed on food conservation because America was expected to feed itself and many of its allies, too.

Women agents worked with the Red Cross and dozens of other war-related agencies and community organizations. Their work went beyond that of providing information, conducting demonstrations and organizing girls' and women's clubs. In addition to the 1,715 home demonstration agents employed by mid-1918, approximately 600 state and district agents and specialists were on the job.

Home economics extension work declined drastically after the war ended. Many states regarded the rapid staff buildup as temporary, brought on entirely by the war effort. As a result, the number of home demonstration agents was reduced to 1,049 on July 1, 1919, and 784 on July 1, 1920. It hit a low of 699 on July 1, 1921.

The 1920s were relatively quiet. Home demonstration agents continued to organize and work with women's, girls' and 4-H clubs, but rural America kept falling further behind its urban counterparts. A 1920 extension survey of farm wives in Kansas revealed the following state of affairs.⁹

- 25 percent had complete water systems

- 30 percent had cold water throughout the house
- 50 percent had water in kitchen
- 15 percent had electricity (home plants)
- 20 percent had acetylene lights
- 50 percent had a washhouse
- 100 percent had sewing machines
- 20 percent had carpet sweepers
- 30 percent had vacuum cleaners
- 20 percent had dustless mops
- 20 percent had fireless cookers
- 15 percent had an electric or power washer
- One had a steam cooker; one had an electric fan; one used an electric iron.

During these years major programs centered on food preparation and preservation, child care and rearing, health and nutrition, home furnishing and care and efficient use of time. Some programs focused on the new household appliances that were introduced as electricity came to rural areas.

The Depression of the 1930s shifted the emphasis of these programs to the basics of living—food, clothing and shelter. Again, the number of agents employed declined. And again, clothing construction and food conservation were back in the limelight. Home gardening and food preservation were promoted. Agents taught women how to make dresses, pillowslips, curtains and shirts from flour sacks. Women and men were shown how to make mattresses from surplus cotton and how to refinish and upholster furniture. Few could afford to purchase such items. One extensive program included soap-making demonstrations using surplus fats.

Although the number of agents did not increase during the Depression, their effectiveness did. Home agents used radio and newspapers to reach more people. They put less emphasis on one-to-one contacts and club meetings. Instead, they conducted general meetings where all women were welcome, not just farmers' wives. Circular letters were used to contact the growing number of women who were or wanted to be actively involved in extension activities. By 1930 the number of volunteer leaders exceeded 200,000. By 1935 these leaders and the home agents assisted 4.9 million families.

Another significant event during this period was the organization in 1933 of the National Home Demonstration Agents Association, later named the National Association of Extension Home Economists (NAEHE). By 1979 membership in NAEHE reached 4,000, approximately 75 percent of all agents. Every state, plus Puerto Rico, Guam and the District of Columbia, has an association affiliated with NAEHE. Approximately 1,200 agents attended the 1979 annual meeting in Richmond, Va. The association is instrumental in promoting professionalism in home economics and bringing important issues to the attention of extension policy makers, programmers and administrators.

World War II (1941-1945) presented another emergency situation for extension service, especially for the women agents who had to fill the shortages left by the many men agents joining the armed services. Emergency agents were employed in large numbers. Many of the depression years' programs were still relevant because food and clothing scarcity continued.

“Victory Gardens” were promoted on the farms and in the cities as home food production efforts. Women’s and 4-H clubs required guidance and leadership as they embarked on patriotic activities on a wide front. Programs on nutrition received special emphasis. Family recreation programs were devised to replace purchased entertainment and travel. Method demonstrations remained the primary teaching method, but now most of these were conducted by volunteer leaders who were instructed by an agent.

Rapid Expansion After World War II

At the end of World War II, home economics extension work was spared the relapse it suffered after World War I. One reason for this was the Bankhead-Flannagan Act of 1945, which authorized greater funding for the Cooperative Extension Service. In the three years from July 1945 to June 1948, staffs were increased by 245 white and 111 black home demonstration agents and 344 assistant agents. That meant at least 300 additional counties across the United States were served by home agents for the first time. With the number of home agents totaling 3,318, most of the 3,150 counties had professional agents. In 1947 these agents reached 791,675 homes for the first time and conducted 704,058 meetings for women and 4-H members that attracted nearly 21 million people. Approximately 420,000 local leaders served as volunteers. About one-third of the homes they and the agents visited was in urban areas, the balance was in rural areas.

Another reason for this expansion was the full recognition of the value of home economics education. The pioneers had laid the groundwork well, while the American Home Economics Association (AHEA) and NAEHE enhanced the image of professionalism. State extension homemaker councils were potent publicity and lobbying organizations. County advisory committees functioned considerably better than their 4-H or agricultural counterparts. Also, second and even third generation 4-H members were becoming homemakers. They knew what they wanted in the way of information, and they expected to get it. Many women in the rural areas had attended or even graduated from college. With energy, enthusiasm and sterling leadership qualities, they began to make even more use of extension home economics specialists and agents.

The quality of these programs improved in the 1950s and 1960s as more resources became available. Extension services tried to place an agent in every county. Counties in a few states assumed full responsibility for funding new positions. Extension service specialists increased rapidly. They prepared volumes of training materials for agents and many more bulletins to be used by homemakers.

Agents and specialists made good use of mass media in their efforts to reach their ever expanding audiences. With the help of 578,000 volunteer leaders, they assisted in 1960 more than 13 million families. These families were 51 percent urban, 20 percent rural, nonfarm and 29 percent farm.

Expanded Food and Nutrition Education Program, 1968

A significant event affecting home economics extension was the formation of the Expanded Food and Nutrition Education Program (EFNEP). Despite extension service's previous emphasis on nutrition, surveys around the nation revealed that some age groups, especially teenagers and the elderly, lacked good nutrition habits. Some of the poor habits were based on ignorance, others on poverty. Some were even practiced despite full knowledge of the imbalanced diet.

EFNEP was initiated in 1968 on a pilot basis in Alabama. Public response was so favorable that a nationwide program was launched in 1969. Its purpose was simply to improve the dietary level and nutrition education of low-income families with young children. Towns and cities with high ratios of low-income populations became targets. Paraprofessionals who lived in the neighborhoods to be reached were recruited, trained and employed (some on a part-time basis) to conduct the program, contrary to the traditional procedures of extension service.

EFNEP is an example of a recognized need that was met through a mandate by Congress. Funds were and still are allocated under Section 3(d) of the Smith-Lever Act. The fiscal year 1970 allocation was \$28.56 million. It was \$48.56 million for 1971 and 1972 and remained steady at \$50.56 million until fiscal year 1979 when it increased to \$51.819 million. In 1978 Congress directed that 20 percent (\$10 million) of EFNEP funds be used for 4-H work. Inflation has reduced EFNEP's activity level, however.

In the years since its inception, EFNEP has reached nearly 2 million hard-to-reach, low-income families. Nearly five thousand paraprofessionals, known as Nutrition Education Assistants (NEAs), are currently involved in EFNEP. In the past many NEAs proved so capable after training and experience that they were moved to full-time and better-paying positions. This was an unexpected by-product of the program.

Present Situation

Home economics extension agents are familiar persons in rural and urban America today. According to recent surveys, only 4-H is more widely recognized than home economics. Yet, home economics programs have traditionally received only 20 percent to 25 percent of the total staff resources available in the Cooperative Extension Service.

Home economics extension programs include six major areas, but dozens of activities make up each of these components. The six areas and professional staff years expended in each of them are noted in Table 1. Food and nutrition commands the greatest attention, partly because of EFNEP.

TABLE 1
**Professional Resources Expended by State Extension Services,
 Quality of Living, 1971 to 1975 and 1978**

| Major Program Components | Staff Years | | | | | |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|
| | 1971 | 1972 | 1973 | 1974 | 1975 | 1978 |
| Food & Nutrition (Includes EFNEP) | 1,291 | 1,571 | 1,271 | 1,297 | 1,352 | 1,268 |
| Family & Resource Management | 379 | 427 | 346 | 353 | 396 | 464 |
| Family Life Education | 284 | 357 | 308 | 325 | 352 | 430 |
| House & Home Environment | 612 | 891 | 765 | 777 | 759 | 526 |
| Family Health and Safety | 206 | 222 | 217 | 236 | 244 | 143 |
| Textiles and Clothing | 448 | 566 | 498 | 486 | 494 | 356 |
| TOTALS | 3,220 | 4,034 | 3,405 | 3,474 | 3,597 | 3,184 |

“Cooperative Extension Service Programs: A Unique Partnership Between Public and Private Interests.” Extension Service, USDA, Washington, D.C., June 1976.

The following list, abstracted from Arkansas' 1982 annual report, gives an example of some of the specialized educational efforts that make up the major six programs.

- Food Preservation-Food Safety
- Dietary Practice
- Food Preparation, Energy, Time and Money Conservation
- Luv an Egg Workshop for 4-H Members
- Teaching Food Buying and Use Through Mass Media
- Extending Buying Power Through Improved Food Storage
- Clothing and Textiles
- Home Remodeling
- Home Maintenance and Repair
- Energy Conservation Using Portable Appliances
- Improving Residential Energy Efficiency
- Window Treatments
- Furniture Refinishing Workshop
- Energy Conservation
- Interior Design
- Extending Family Income Through Home Furnishing Skills
- Family Financial Planning and Management
- Home Money Management
- Home Management Summer Youth Program
- Home Gardening
- Extending The Clothing Dollar
- New Parent Education
- Improving Family Interaction
- Developing Parent Education Leaders
- Family Education for Coping With Change
- Teenage Parenting Classes
- Parenting Break-and-Learn Mini Lessons for Employed Adults
- Quilt Making
- Craft Marketing
- Personal and Home Safety
- Health Education
- Home Economics Public Affairs
- Extension Homemakers Citizen Workshops

Twenty percent of extension service's total staff time was spent on quality-of-living programs in 1978. This decreased from 23.8 percent in 1964. Staff resources, however, increased nearly 12 percent from 1971 to 1975 and another 11 percent by 1978. In 1981 the professional core of nearly 4,000 extension home economists was augmented by a force of nearly 5,000 paraprofessionals. Without EFNEP, however, the number of paraprofessionals would be nearly zero.

In 1978, 10 million families were contacted. Volunteer leaders numbered 700,000, an increase of 120,000 over 1970, and 300,000 more than 30 years before. These are staggering figures, but not when compared to the nearly 80 million families in the United States. In actuality, only a small percentage of the U.S. population is being reached. Some critics point out that, just as with other extension programs, those who least need the information and assistance (except for EFNEP participants) are the very ones who make up the bulk of the contacts.

A recent survey revealed that every 12 months volunteers contribute approximately 25,000 years of leadership to their communities, or approximately 20 hours per month per leader. Based on a minimum wage of \$3.35 per hour, the pay for their time would amount to more than \$100 million per year. It is no wonder that county workers and specialists put special emphasis on training these leaders. These volunteers are extremely valuable and the multiplier effect of their teaching has far-reaching effects.

Another important part of home economics extension is the extension homemaker unit, or club, program. In 42 states and Puerto Rico, 498,347 extension homemaker members belong to 30,848 units. These units are affiliated with state extension homemaker councils and the National Extension Homemakers Council.

Home economics extension still suffers in one major area—personnel. Professional home economists do not earn the level of salary enjoyed by agricultural and community resource development (CRD) faculty in some states. Few women are in administrative positions in extension service. The situation vastly improved over the past 15 years, but further improvement is needed.

What About The Future?

What does the future hold for extension service's quality-of-living programs? Predictions are hard to make, of course, but resource limitations will definitely take their toll. This has already happened with EFNEP. Some states have had to reduce the number of paraprofessionals employed, the volume of training materials prepared and the number of bulletins and leaflets printed and distributed. This can be blamed largely on inflation, but competition with other program areas has had some impact as well.

Extension programs are continually changing. This may not be obvious to the distant observer, but it is apparent to those intimately involved. Home

economics extension programs reflect administrative decisions, federal mandates, reallocation of resources, local desires and personnel changes like any other people-oriented organization. Because county advisory committees play a more important role in developing county programs than do their 4-H, CRD or agricultural counterparts, variation from county to county is greater.

Extension home economists have made and will continue to make significant contributions to 4-H and other youth programs. Their contribution is especially important in two-agent counties where they carry the responsibility for guiding the home economics aspects of the 4-H and youth program.

Nevertheless, specialists and agents suggest several major concerns should be tackled, based on larger state and national priorities. These priorities which follow were derived from three sources¹⁰ with remarkably similar content.

- **Food and nutrition** will still receive more attention than any other area. Emphasis will continue on low-income families and youth. Food safety, nutrition, preservation, meal planning, food marketing and stretching the food dollar will be featured.
- **Family resource management** will cover the entire spectrum of consumer economics, budgeting, household management and estate planning. Higher energy and food costs will make this an increasingly important concern.
- **Family life education** will place special emphasis on strengthening family relationships with the end goal of improving family stability. Changing roles of men and women and the need for parenting information will be stressed.
- **Family and community health and safety** will continue as an integral part of the program. Information on personal and family health and health care programs and facilities, especially for the elderly and economically disadvantaged, will receive due attention.
- **Housing** maintenance, repair, insulation, interest and mortgage costs take approximately one-third of a family's income. Low income, rural and elderly families will be the primary target audiences for educational and skill programs on home care.
- **Creative and satisfying leisure time activities** will continue to receive the attention of agents and specialists. Pressure to provide this information will come from local committees and leaders, not from state or federal administrators.
- **Textiles and clothing** information and skill teaching has been a trademark of home economics. Rapid changes in fibers, fabrics, styles and escalating clothing prices will keep this area in the forefront.

This formidable program is not necessarily any more difficult or far-reaching than those of the 1930s or 1940s. The key for this and the following decades will be prioritizing program areas, and it won't be easy. Large amounts of in-service training and new or updated teaching materials will be required. Just as in agriculture and 4-H, delivery methods must become more efficient with additional attention directed to mass media and computerized technology.

Notes

¹*A People and A Spirit*. Joint USDA-NASULGC Extension Study Committee Report. Extension Service, Colorado State University, Fort Collins, Colo., November 1968.

²The first history written of extension service makes it clear that education for farmers' wives was an important phase of extension work from its beginning. See: True, A.C. *A History of Agricultural Extension Work in the United States, 1785-1923*. USDA Miscellaneous Publication No. 15. Washington, D.C.: October 1928.

³Prawl, W., and R. Medlin. *Kansans' Right to Know: 108 Years of Extension Education*. Cooperative Extension Service, Manhattan, Kan., Oct. 1976.

⁴The first history written of extension service makes it clear that education for farmers' wives was an important phase of extension work from its beginning. See: True, A.C. *A History of Agricultural Extension Work in the United States, 1785-1923*. USDA Miscellaneous Publication No. 15. Washington, D.C.: October 1928.

⁵Prawl, W., and R. Medlin. *Kansans' Right to Know: 108 Years of Extension Education*. Cooperative Extension Service, Manhattan, Kan., Oct. 1976.

⁶⁻⁸The first history written of extension service makes it clear that education for farmers' wives was an important phase of extension work from its beginning. See: True, A.C. *A History of Agricultural Extension Work in the United States, 1785-1923*. USDA Miscellaneous Publication No. 15. Washington, D.C.: October 1928.

⁹Prawl, W., and R. Medlin. *Kansans' Right to Know: 108 Years of Extension Education*. Cooperative Extension Service, Manhattan, Kan., Oct. 1976.

¹⁰*The Cooperative Extension Service in Transition*. ECOP Report. University of Wisconsin, Madison, Wis., August 1979.

Cooperative Extension Service Programs. Extension Service, USDA, Washington, D.C.: June, 1976.

Survey conducted by the senior author in September 1979, called "Insights Into the Cooperative Extension Service."



Extension Service's 4-H and Youth Program

This is the third of four similar and consecutive chapters outlining extension service's four major program areas from the late 1940s to the early 1980s.

Precisely when or where 4-H began as an organized youth movement is not known, but the year 1900 can be used as a takeoff point. At that time the age of scientific agriculture in the United States was beginning to dawn because the teaching and research branches of the new land-grant universities were producing results. The conservative, independent and provincially minded farmers, however, were slow to put into practice recommendations by teachers and researchers. And outreach efforts, already 20 years in the offering, met with limited success.

Farmers' institutes, however, were popular. In many states special activities for farm women and youth became a part of institute programs. Slowly, early lay educators realized that some of the knowledge and practices taught youth challenged farmers and homemakers to accept new ideas. Thus, the idea of catering to the needs of rural youth began to grow.

Rural school teachers and their supervisors across the United States organized corn clubs, pig clubs, garden clubs and other clubs for boys. This work later involved girls and became the forerunner of what evolved into a unique program for American youth.

As the movement, which was inspired by the need to improve life in rural areas, grew in popularity and effectiveness, it became associated with the outreach program, now called extension service, of the land-grant universities and gained its name 4-H.

Definition and Description

In the broadest sense 4-H can be defined as an educational endeavor

designed to enhance the scientific knowledge, leadership skills and capabilities of rural youth to adjust to rapidly changing social and economic conditions. In the beginning rural youth between the ages of 10 and 20 years were enrolled in clubs. Nearly 80 years later only two things have changed—the age limit, now 8 to 19 in most states, and the availability of 4-H programs to all youth, regardless of residence.

The 4-H youth movement has a simple objective—to help prepare tomorrow's citizens physically, mentally and spiritually so they can more ably participate in and make a better contribution to a democratic society. 4-H is a voluntary program that supplements and complements the formal education system of the schools. It does not compete with the schools except for the time it takes.

Four-H is the most widely recognized of the Cooperative Extension Service's four major program areas, and it is recognized around the world.

By the mid-1960s programs similar to 4-H were in more than 70 countries around the world.¹ By 1979 such programs operated in 82 countries and enrolled approximately 5 million members, plus an additional 4,129,523 in the United States.²

The four-leaf clover, a symbol of good luck, with an *H* on each leaf was adopted in 1911 by the USDA as the official symbol of boys' and girls' club work. In the early 1920s the unique and now widely recognized name of 4-H was adopted by the Cooperative Extension Service.

Description

The common theme underlying 4-H is learning by doing. Its motto—"to make the best better"—incorporates the objectives of building character and citizenship and of doing the best job possible in every phase of life. The national 4-H pledge, adopted in 1927, incorporates both theme and motto:

I pledge: my Head to clearer thinking,
my Heart to greater loyalty,
my Hands to larger service, and
my Health to better living
for my club, my community and my country.

In the early 1960s the phrase "and my world" was added. This pledge explains the four *H*s that appear in each leaf of the clover as head, heart, hands and health. The clover is green, testifying to nature's predominant color and the vigor and growth of youth. The *H*s are white, symbolizing the purity of youth.

Strangely enough, the Smith-Lever Act of 1914 that mandated how extension work would be conducted, organized and funded made no direct mention of youth work. The act's directive, ". . . to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics," was immediately interpreted to include work with rural youth, however.

Procedures and Organization

The first clubs organized in rural elementary schools were for boys or girls (they became co-educational in the 1910s) around a single project, for example: corn, pigs, sewing or canning. Boys and girls who enrolled in these projects agreed to

1. carry out certain activities;
2. be under the supervision of a leader;
3. keep a record of what was done and how it was done as well as expenditures and income figures;
4. explain and show the results to others.

The function of the leader was to provide information, serve as organizer and teach skills to the members. The projects, strictly of a rural nature in the early days, have been diversified to appeal to youth in urban areas as well, but projects still form the basis of enrollment.

Clubs

Four-H clubs band youth together by giving members a common identity and a feeling of belonging. Through club activities members learn the rudiments of socialization, parliamentary procedure, leadership, and skills, personal and mental development. Many clubs today join forces in significant and constructive community development projects.

The club structure was accepted formally in 1919 and soon changed its focus from the project to the community. This remains true today even though project clubs still exist. As its name implies, the community club is organized around a group of homes that have a recognized boundary. The rural school was often the club meeting place, but meetings were also conducted in private homes, churches and community halls. Usually, club meetings are held once each month.

Leadership

As the movement expanded and community clubs appeared on the scene, voluntary leaders, often parents of members, took over the guiding, supervising and teaching roles formerly filled by the teachers. These leaders give freely of their time, talents, and to a limited degree, personal resources to support the movement. This volunteer activity stimulates adults to gain more knowledge and to upgrade their technical and leadership skills in order to do a better job. Close and healthy relationships between parents and their children and adults and youth are promoted. Overall, 4-H makes an important contribution to adult education by providing extensive educational experiences for adult leaders.

- Extension professionals also play several important roles. They are the
1. liaison between the local clubs and the Cooperative Extension Service;
 2. technical advisers;

3. trainers and managers of volunteer leaders;
4. counselors to youth, especially concerning careers;
5. club organizers (especially in the past);
6. gatherers and reporters of data;
7. 4-H promoters, and the
8. links with private 4-H sponsors.

Leadership at the club and county level is also provided by older 4-H members called junior leaders. They assist and multiply the efforts of adult leaders. In 1979 approximately 138,000 4-H members were junior leaders. The total number of adult volunteer and junior leaders stood at 565,842.³

Professionals at state and national levels develop policy, administer budgets, prepare project and training materials, recruit and train agents and specialists, and develop and interpret rules and regulations that are required to guide such a large and diverse organization.

In the early 1980s professional staff employed as 4-H agents, specialists or administrators numbered less than 1,900, approximately 11 percent of the total 17,000 extension professionals in the United States. Nearly all extension professionals contribute some time and energy to 4-H and youth programs, however. This is revealed in Table 1, which outlines staff years expended by program components.

TABLE 1
Extension Professional Resources Expended by
State Extension Services for Major Program Areas

| Program Area | Fiscal Years | | | | | |
|--------------------|--------------|--------|--------|--------|--------|--------|
| | Staff | Per- | Staff | Per- | Staff | Per- |
| | Years | & Cent | Years | & Cent | Years | & Cent |
| | 1971 | | 1975 | | 1979 | |
| Agriculture and | | | | | | |
| Natural Resources | 6,178 | 39.9 | 6,475 | 38.7 | 7,095 | 41.7 |
| Home Economics | 3,220 | 20.8 | 3,597 | 23.1 | 3,829 | 22.5 |
| 4-H and Youth | 4,985 | 32.2 | 5,388 | 30.5 | 4,730 | 28.8 |
| Community Resource | | | | | | |
| Development | 1,099 | 7.1 | 1,272 | 7.9 | 1,361 | 8.0 |
| TOTALS | 15,482 | 100.0 | 16,732 | 100.0 | 17,015 | 100.0 |

Compiled from *National Summary of Extension Level of Effort for FY 1979*, SEA-Extension, USDA, March 1980; and the 1979 Extension Management Information Fact Sheet, Tables 79-2 and 79-3.

In recent years 4-H has received approximately one-third of extension service's total staff resources at the state levels. For example, it was 32.2 percent in 1971, but dropped to 28.8 percent by 1979.

Paraprofessionals are now widely used in the 4-H and youth program. Their contribution equaled 1,461 staff years in 1979 and is noted in Table 2.

TABLE 2
Expended Paraprofessional Staff Years for
4-H and Youth in Fiscal Year 1979

| Program Component | Staff Years |
|---|-------------|
| Expanded Food and Nutrition Education Program - Federally Funded | 467.6 |
| Expanded Food and Nutrition Education Program - Nonfederally Funded | 29.7 |
| Other | 963.6 |
| TOTAL | 1,460.9 |

Compiled from *National Summary of Extension Level of Effort for FY 1979*, SEA-Extension, USDA, March 1980; and from the 1979 Extension Management Information Fact Sheet, Tables 79.2 and 79.3.

Growth

From its beginning boys' and girls' club work grew rapidly, first in the midwestern and northern states and then in the southern states. A federation of rural school agricultural clubs was organized in Ohio by 1904. The Farmer Boy's and Girl's League was organized the same year by the Texas Farmer's Congress. Also in 1904 four states held special sessions for farm youth in connection with farmers' institutes. Twenty states reported such work by 1909.

Agricultural agents were organizing clubs in the southern states by 1908. Marie Cromer, a rural school teacher in South Carolina, organized in 1910 a girls' tomato club with 47 members. In that same year Seaman Knapp, who then headed a nationwide farmer demonstration work effort, appointed her the first special agent to supervise the development of youth work. In 1911 the General Education Board made funds available for the systematic organization and expansion of youth work, and Oscar Benson was appointed as a special USDA agent to coordinate state youth activities in the northern and western sections of the United States.

Growth was extremely rapid from this time on as illustrated in Table 3. The table's enrollment numbers for each year through 1965 represent only those youth actually enrolled in community and project clubs. Participation in youth activities sponsored by the Cooperative Extension Service beyond formal enrollment in community project clubs increased markedly in recent years, as indicated by the figures for years 1970, 1975 and 1979.

TABLE 3

Growth of Boys and Girls' Club Work in the United States, 1915-1979

| <u>Year</u> | <u>Number Enrolled</u> |
|-------------|------------------------|
| 1915 | 161,518 |
| 1922 | 305,622 |
| 1935 | 997,744 |
| 1945 | 1,562,622 |
| 1955 | 2,155,952 |
| 1965 | 2,185,145 |
| 1970 | 6,605,212* |
| 1975 | 5,577,716** |
| 1979 | 5,078,022*** |

*Includes special interest and 4-H TV enrollment.

**Includes 819,369 in 4-H EFNEP and 724,679 in 4-H TV enrollment.

***Includes 639,103 in 4-H EFNEP and 309,396 in 4-H TV enrollment.

Data compiled from various reports and publications from Extension Service, USDA, Washington, D.C.

Another way of analyzing 4-H growth is to look at project expansion and enrollment. From 1912 to today, projects have diversified from the basic corn, pigs, tomatoes, flowers, sewing and canning topics to more than 100 varieties. Table 4 illustrates 4-H program and enrollment numbers for Kansas. Livestock and poultry projects are the most popular, as would be expected in an agricultural state, but home economics projects are almost as popular. More than 11,400 volunteer leaders work with the 40 full-time agents, plus 240 agricultural and home economics agents across the state. All share a leadership role in this program.

TABLE 4

4-H Project Enrollment in Kansas, 1978*

| <u>Project</u> | <u>Number Enrolled</u> |
|--|------------------------|
| Livestock and Poultry | 27,964 |
| Individual and Family Resources (Home Economics) | 24,536 |
| Introductory, General, Miscellaneous | 17,715 |
| Leisure, Education and Cultural Arts | 14,908 |
| Energy, Machines, Equipment and Engineering | 8,991 |
| Plant Science and Crops | 7,245 |
| Communications, Arts and Sciences | 5,951 |
| Ecology, Natural Resources | 4,500 |
| Community Development, Service, Government | 2,555 |
| Health, Personal Development, Relations | 1,582 |
| Cultural Understandings and Exchanges | 664 |
| Economics, Jobs and Careers | 141 |
| TOTAL | 116,752 |

*46,000 members have chosen from 53 different projects for an average of 2½ projects each.

Enrollment is only one measure of 4-H activities. In addition to club meetings and projects, 4-H members are involved in camps, tours, educational television, preparing exhibits for fairs, judging community projects, demonstrations, family events, public speaking and individualized learning. Even with large enrollment figures, only about 12 percent of U.S. youth between the ages 9 to 19 (approximately 45 million) were involved in 4-H programs in 1975. The percentage for farm youth was 36.7. Eighty percent of the participants lived on farms or in towns and cities with populations under 50,000. Approximately 25 percent of the total included members from minority ethnic and racial groups.

Developments Since 1950

The rate of change in rural America increased after World War II. These changes greatly influenced 4-H and expanded the youth movement into towns and rural trade centers, and in the late 1960s and early 1970s, into urban centers. Project diversification received widespread attention in the 1950s and the 1960s, and club memberships escalated in the late 1950s following a brief slump after World War II.

The contributions 4-H members and their leaders made to the war effort in the form of victory gardens and bond drives were significant in that it resulted in widespread publicity for the movement. At the same time it exposed city youth and their parents to 4-H. This exposure paid dividends 20 years later when efforts were made to extend 4-H to urban areas.

Recreational activities were stepped up for all members. Special "young farmer" efforts were made to work with older rural youth through organized recreational, social and career-oriented activities. Unfortunately, the young farmer effort lost momentum rather quickly. For all practical purposes it ceased to exist by the late 1960s.

Drama and music, including both voice and instrumental, events were popular during the 1950s and 1960s. Community recreational facilities had deteriorated during and following the war, so extension agents and volunteer leaders took steps to upgrade existing facilities and to develop new ones. The number of state 4-H camps increased significantly.

International affairs were much on the minds of young people after World War II. People were determined that the peace should never again be broken. As a result of this thinking, an International Farm Youth Exchange (IFYE) was initiated in 1948 as a two-way program for youth between 19 and 28 years of age. From 1948 to 1979 more than 7,000 youth from 85 countries (approximately half from the United States) participated by living and working with rural families in another country for five to eight months.

Other international programs have subsequently developed. The 4-H Teen Caravan for youth from ages 16 to 19 is patterned after IFYE with shorter lengths of stay. A one-year, IFYE-type exchange called the Youth Development Project (YDP) gives young people an opportunity to contribute their

talents and energies directly to the expansion of 4-H-type programs abroad. In the 1960s a two-way exchange with Japan, known as LABO, was initiated. By 1979 it had involved nearly 2,500 participants.

These international 4-H programs have been conducted by the National 4-H Club Council, located in a Washington, D.C., suburb, in cooperation with the Cooperative Extension Service. The council, organized in 1948 as the National 4-H Foundation, operates as a public foundation with private funds. It also operates the National 4-H Center just outside Washington, D.C.

Support

The 4-H movement would be only a shadow of itself today if it had to rely solely on resources from the Cooperative Extension Service.

Leadership: The key to a successful, growth-oriented and responsive 4-H and youth movement is the quality and quantity of its volunteer leaders who serve without compensation. Serving nationwide in 1979 were 565,842 volunteer leaders, including 137,384 junior leaders and 44,642 leaders assisting in 4-H EFNEP. In 1979 Kansas, for example, had only 280 agents but more than 11,400 adult volunteers. That equals a ratio of 40 leaders for each professional.

These volunteer leaders perform many roles and functions. Among the most significant are advisory (to professionals), supervisory (at exhibits, fairs, shows, 4-H days, etc.), technical (as project and activity leaders), guidance (counselors and leaders of community or project clubs), recruitment (of both members and other leaders) and publicity (satisfied leaders are the best promoters of a movement).

The number of volunteer leaders nearly doubled from 1965 to 1975. An Extension Committee on Organization and Policy (ECOP) subcommittee on 4-H that prepared a report called "4-H in Century III" recognizes them as the "keys to success." The number one recommendation of this subcommittee was to double the number of volunteer leaders serving 4-H in the first decade of Century III (1976-1985) because this could result in a doubling of the number of 4-H clubs, special interest groups and 4-H participants.⁴

A recent study in Michigan, Illinois and Kansas revealed that the average 4-H volunteer leader in these states contributed 277 hours per year to the program. In addition, they contributed an average of \$155 in materials and supplies from their own resources for a multitude of purposes. If they were paid \$3.50 an hour for their donated time, each volunteer leader's contribution would increase \$970 for a total of \$1,125.

Paraprofessionals are of great value to 4-H. They add to the program a leadership and skill element that cannot be supplied in the necessary quantity via the volunteer route. Paraprofessionals are paid members of the Cooperative Extension Service's staff who assist professionals. Their educational qualifications are usually (but not always) less than the professionals, and they are not viewed as career persons. Many work on a part-time basis. Their

full-time equivalent total, however, was 1,461 hours in fiscal year 1979. Refer to Table 2.

Paraprofessionals are selected from among the clientele with which they will be working. In the case of 4-H, this usually means the inner cities of large urban areas where work is done with ethnic minorities and low-income youth. The Century III report also recognized the value of paraprofessionals and cited the recommendation: "There should be an increase of at least 50 percent in the professional or paraprofessional staff devoted to 4-H."⁵

As these numbers increase, it is important that professionals, in consultation with volunteers, paraprofessionals and administrators, clearly define the functions and responsibilities of each. A recent study by Munson attempted this.⁶

Of course, additional thousands of 4-H junior leaders will have to be recruited and trained in an effort to gain their input at local, state and national levels.

Resources

The resource contribution of volunteer leaders is large, but it forms only a small portion of the total made available by individuals, organizations, businesses, industries and foundations. Most of this support stems from the grassroots at community, county and state levels. This support helps increase the effectiveness of volunteer, paraprofessional and professional leaders.

The National 4-H Council is a private, nonprofit educational institution dedicated to strengthening 4-H and youth programs. It is supported almost entirely by private donations and operates on behalf of the Cooperative Extension Services and the USDA. This council, through its partnership of the public and private sectors, operates the National 4-H Center and makes possible

- citizenship and leadership training for 4-H members and adult volunteers to build responsible initiative in youth;
- international exchanges and training involving programs similar to 4-H in more than 80 countries around the world to enhance cross-cultural understanding;
- creative educational literature and audio-visual aids to support the 4-H curriculum in more than 50 project areas;
- staff development and training to strengthen skills of professionals, paraprofessionals and volunteers;
- publication of *National 4-H News*, a magazine issued 10 times a year for adult and junior leaders to share ideas and techniques;
- curriculum development, program innovation and experimentation to help 4-H explore contemporary concerns;
- incentives for excellence through a nationwide awards program which recognizes achievement at the local, state and national levels;
- individual development of 4-H members through educational activities such as National 4-H Congress, citizenship experiences in the nation's capital and other events;
- operation of National 4-H Supply Service to build visibility and pride among 4-H members.

People are investing their money in 4-H and youth programs at record levels, but if 4-H is to double in size over the next decade, these contributions will have to at least double if the quality of work is to be maintained.

The federal government, through Extension Service, USDA, will also have to increase its funding and support. Congress provided special assistance under Section 3(d) of the Smith-Lever Act when EFNEP funds were earmarked for expanding 4-H urban gardening programs in six metropolitan cities beginning in fiscal year 1977. This amount was increased to \$3 million in 1978 and funded under a separate Smith-Lever 3(d) item. Funds totaling \$7.5 million for promoting 4-H in the depressed areas of U.S. cities had been earmarked earlier by Congress for fiscal year 1973. The various state extension services, through their share of the formula funds, have used the extra funds to increase their professional and paraprofessional personnel. The Century III report suggested

. . . that major emphasis of subject matter specialists be placed on developing increased support materials and training for volunteer leaders to help improve their effectiveness as well as expand their functions and responsibilities. These programming efforts should emphasize the dual objective of teaching subject matter and life skills. (recommendation two)

. . . all staff responsible for the 4-H program should make increased efforts to inform and solicit assistance from administrative supervisory staff, subject matter specialists and other university personnel where appropriate inputs can be made by them to strengthen the 4-H program. (recommendation three)⁷

Professional and paraprofessional 4-H staff contacted more than 38 million clientele in 1979. The magnitude of the program is illustrated in a fact sheet from Extension Service, USDA, in Appendix H.

It must be emphasized that 4-H is for all youth, and that it must continue to reach larger numbers of youth from all socioeconomic, cultural and ethnic groups in rural areas, small towns and big cities. For 4-H to be considered a sound and necessary investment, it must also be recognized that today's youth are tomorrow's leaders.

Youth have and will continue to strengthen extension efforts with adults in a number of ways because work with 4-H youth helps to

- develop useful attitudes and skills;
- upgrade extension programs;
- provide entry into new homes;
- enhance family decision making;
- generate general support for extension service;
- train future extension personnel;
- provide continuity of the Cooperative Extension Service.

Three recommendations from the Century III report hold true for all extension program areas: 1) more effort must be given to publicize the challenges and opportunities of 4-H; 2) more effective and systematic methods of evaluation, accountability and reporting must be developed; 3) the use of television as an educational program medium must be expanded.

Final report recommendations considered the advancement of 4-H and youth work through

- economics, understanding jobs and career exploration;
- continued and expanded emphasis on food and fiber production including processing, marketing and consumption;
- increased emphasis on the study and understanding of the environment and need to optimize the use of our natural resources;
- home and family resource activities centering on the family, nutrition and consumer education, especially with low-income groups in mind;
- expansion of health and safety programs of an individual, as well as community, nature;
- more opportunities for youth to commit themselves to and help solve problems in their communities;
- increased attention to the creative and performing arts as well as group interaction and interpersonal communications in an effort to contribute to an improved quality of life for the future;
- recognition of the importance of conservation and wise use of our energy resources through the vehicle of mechanical sciences, related projects and activities.⁸

The first 75 years of 4-H paved a path for future success through innovative programming that meant fun, learning and adventure. The Century III report outlines a procedure that can continue that growth. A great deal remains to be done, but extension professionals, paraprofessionals, volunteer leaders and participants can do it by working together. A 4-H promotional brochure recently prepared in Kansas expresses this well: "4-H is people finding ways to work, play and grow." Figure 1 states in a straightforward manner how this is done, and Appendix I explains the "essence of 4-H."

FIGURE 1

4-H is People Finding Ways to Work, Play and Grow

through . . .

- **Formal Clubs**
Multi-interest community, project, or clover clubs, of five or more members, that hold regular meetings.
- **Informal Groups**
Single interest project or teen groups, with informal meetings on short- or long-term topics.
- **Events**
Special opportunities, like fairs, camps, or conferences, to encourage a first-time or repeated 4-H experience.
- **Enrichment Programs**
Learning experiences in cooperation with other community agencies (schools, TV, newspapers) by using 4-H designed programs.

in community . . .

- **Projects**
to meet special interest needs of members or groups.
- **Service Programs**
to develop responsibility and a sense of caring for the community.
- **Meetings**
to plan, learn, celebrate, have fun, or just talk.
- **Tours and Trips**
to have fun, learn, and broaden one's feelings about other people and places.

and in county . . .

- **4-H Days**
to share with others the talents developed and a story of 4-H experiences.
- **Camps**
to learn about nature, develop new skills, have fun with others, and discover one's self.
- **Fairs**
to display and compare 4-H projects, and to tell the 4-H story to the public.
- **Achievement Days**
to share one's successes—and failures—and to celebrate with all those who have participated.

Leaders help young people take advantage of the above opportunities as they . . .

| | | | | |
|---|---|--|---|--|
| Get Together to know one another. | Decide together what to learn, make, or do. | Work together to learn, make, or do. | Measure together what's learned, made, or done. | Celebrate together the experiences, successes, feelings. |
|---|---|--|---|--|

From a 4-H promotional brochure titled *4-H Is*, Kansas Cooperative Extension Service, Kansas State University, Manhattan, Kansas. Publication 4-H 428, April 1980.

Those readers who wish to explore the history of 4-H prior to World War II can find more information in:

- 1) *The 4-H Story* by F.M. Reck, published by the Iowa State University Press in 1951;
- 2) *Organization of 4-H Club Work* by Gertrude Warren, published as Agriculture Handbook No. 33 by the USDA in 1952;
- 3) *4-H: An American Ideal* by Thomas and Marilyn Wessel, published by the National 4-H Council in 1982.

Notes

¹A publication titled *World Atlas of 4-H and Similar Youth Educational Programs* (third edition, 1970) prepared by the National 4-H Foundation, Washington, D.C., is a directory that identifies and describes these programs now operating around the world. Many (48) of them use the four-leaf clover to identify these organizations.

²⁻³*4-H in 1979, Some National Statistics*. Extension Service, USDA, Washington, D.C., 1980. A two page information flier.

⁴⁻⁵*4-H in Century III*. Extension Committee on Organization and Policy. Michigan State University, East Lansing, Mich., 1976.

⁶Munson, Mary K. *A Comparative Study of Kansas and Missouri Extension Professionals' Attitudes Related to Employment and Appropriate Tasks for 4-H Youth Paraprofessionals*. Ph.D. Dissertation, Kansas State University, 1978.

⁷⁻⁸*4-H in Century III*. Extension Committee on Organization and Policy. Michigan State University, East Lansing, Mich., 1976.

13



Community Resource Development

This is the last of four similar and consecutive chapters outlining extension service's four major program areas from the late 1940s to the early 1980s.

Community resource development (CRD) has been recognized in the past 10 to 15 years as one of the four major extension program areas, but only from an administrative and financial viewpoint. The following exchange illustrates this.

During concluding remarks at the 1972 Annual Cooperative Extension Service conference at Kansas State University, Robert Bohannon, then director of the Kansas Cooperative Extension Service, appealed to his agents and specialists to “get behind the new CRD program in an effort to revitalize rural America.” One of the agricultural agents, a veteran with nearly 40 years extension experience, rose and made this comment: “Well, director, thanks for telling us about CRD and how we’re supposed to increase our efforts in this direction, but based on your description of possible activities, it just occurred to me that I’ve been trying to do just those things for the past 35 years or so.”

Lay people and some professionals are slightly confused about CRD, what it really is and how it is to be accomplished. In a 1970 report to the president of the United States, then USDA Secretary Earl L. Butz wrote: “Rural Development is a vital key to implementing a policy of creative, balanced national growth.”

For all practical purposes the terms rural development, community development, community improvement and community resource development can be used interchangeably. A review of legislation and reports reveals rural development was the forerunner of CRD and was used until the early 1970s. CRD is a more comprehensive term that accurately describes the

intended activity—the development of community resources to solve community problems.

A Definition and Description

CRD is a process whereby those in a community arrive at decisions as a group and take action to enhance the social and economic well-being of the community. CRD, as a process, is not new or different. What is different is the recognition, emphasis and support it began to receive in the mid- to late 1950s.

Jenkins, in his *Historical Overview of Extension*, puts CRD clearly into focus.

Extension's first important post war (World War II) efforts toward organized educational social action work came in its experimental . . . rural development programs, begun on a pilot county basis during the 1955-56 fiscal year . . . By 1960, programs were planned or operating in 262 low-income rural counties throughout the nation.¹

CRD program efforts concentrate on leadership and organizational development, increasing job and income opportunities, better knowledge of land use, comprehensive planning and other public policy issues, local government operations and improving community services and facilities.

In one sense CRD's clientele comprises communities and their sub-systems. It recognizes at least three different target groups:

- institutions or groups involved in making and implementing decisions about the community;
- key individuals who influence or make decisions relevant to the community as a whole;
- those individuals and groups affected by decisions made regarding the community.

CRD focuses on improving the physical, economic, social, cultural and institutional environment in which the people of a community live and work. Its approach is educational, and wherever possible it uses existing agencies and organizations. When necessary, it initiates the formation of new groups or organizations dedicated to improving the quality of life in a rural America community.

Rural America, for CRD purposes, includes all areas that are outside major metropolitan centers or cities and that have populations less than 50,000. Why the rural areas? Because the day-to-day professional help of planners, city managers, analysts and business and legal experts is not normally available to small towns and communities.

CRD activities are intended to make citizens and groups aware of needs and issues; assist concerned citizens and groups to study, analyze and rate their community problems; and help them develop strategies to attain their goals by teaching them the leadership and organizational skills necessary for tackling the identified problems. With CRD small and medium-sized towns and open communities can draw on the knowledge and expertise of the land-grant universities and the USDA through its Cooperative Extension

Service representatives. Thus, CRD assistance and efforts are expanding in a vast majority of the 3,000 and more rural counties in the United States.

Program Components

Most states have incorporated at least 10 different components into their CRD program responsibility. They are

- leadership development in the community;
- community organization and leadership development;
- community health and welfare;
- community services and facilities;
- comprehensive planning, including land use;
- environmental improvement;
- economic development, including tourism;
- community aspects of housing;
- local government operations and taxation;
- community recreation and leisure time activities;
- manpower development;
- cultural development.

A 1976 report on staff years expended from 1971 through 1975 on these various components and their combinations reveals that major activities in 1975 involved community services, facilities and housing, and community organization and local government operations. See Table 1.

| | Staff Years Expended | | | | |
|---|----------------------|--------------|--------------|--------------|--------------|
| | 1971 | 1972 | 1973 | 1974 | 1975 |
| Economics, Business and Manpower Development | 92 | 136 | 172 | 177 | 165 |
| Community Services, Facilities and Housing | 313 | 445 | 473 | 515 | 471 |
| Public Affairs and Environmental Impact | 111 | 111 | 114 | 88 | 64 |
| Community Organization and Local Government Operations | 311 | 358 | 430 | 442 | 369 |
| Leadership Development | 272 | 185 | 243 | 250 | 203 |
| TOTAL | 1,099 | 1,235 | 1,434 | 1,472 | 1,272 |

Historical Development

What originated as an effort to provide special assistance to disadvantaged rural areas through a 1955 amendment to the Smith-Lever Act has developed into a multifaceted program that attempts to coordinate rural development activities of federal departments with the USDA. This chronological series of events is presented in tabular form in Table 2.

| Fiscal Year | Legislation | Funding Authorized | Brief Description of Purpose and Results |
|-------------|-------------------------------------|--|--|
| 1955 | Smith-Lever (New Amendment in 1955) | \$640,000 authorized, but no funds appropriated | Rural development program inaugurated on a pilot basis. Objective was to provide sound and practical assistance for the more than half of U.S. farm families that produce little for the market. |
| 1956 | " " " | \$640,000 to state extension services from USDA funds | Rural development work extended and committees formed. Twenty-one pilot projects operated in 19 states. USDA agencies involved were Extension Service, USDA, as the educational arm with Farmers Home Administration, Soil Conservation Service, Forest Service and Rural Electric Administration providing technical support. |
| 1957 | " " " | \$640,000 | 100 rural counties pioneered in this new approach to rural development in 30 states and Puerto Rico. |
| 1958 | " " " | \$890,000 | Five federal departments coordinated rural development efforts including: Agriculture, Interior, Commerce, Labor and Health, Education and Welfare, plus one federal agency (Small Business Administration). |
| 1960 | " " " | \$890,000 | Work planned or underway in 262 counties. 1959 Census of Agriculture reported more than 75 percent of all farm families had income under \$5,000. |
| 1961 | Smith-Lever Section 3(d) | \$890,000 (\$700,000 for area rural development agents) | Program formally named Rural Areas Development (RAD) now recognized as a nationwide program. New "Office of Rural Areas Development" established in USDA. State extension services given responsibility to provide organizational and educational leadership for establishing RAD committees. FMHA and REA also given key roles. |
| 1961 (May) | Area Redevelopment Act | \$890,000 for rural development (\$3 million appropriated from Congress for extension service) | Rural development committees now established in 1,800 of 3,150 counties. Department of Commerce given basic responsibility but delegated responsibility for work in rural areas to USDA. |
| 1962 | | \$2 million appropriated for extension " " " | USDA assistant secretary for Rural Development and Conservation—a new position—is created and filled. |
| 1962 | Food and Agriculture Act of 1962 | " " " | Title I and Title IV provided new authorizations for funds for rural development and conservation. Resource Conservation and Development (RC & D) projects authorized. Department of Housing and Urban Development (HUD) now cooperated with USDA. |
| 1968 | | | Reorganization within USDA created the Rural Community Development Service (RCDS) to coordinate all USDA agencies involved in rural development. Technical Action Panels (TAP), composed of USDA field staff, established. All states had organized TAPs and nearly 3,000 county |

TABLE 2
 Chronological Development of CRD Programs

| | | | |
|------|--|--------------------------------|--|
| 1969 | | | panels were operating. |
| 1970 | | | Cooperative Extension Service given expanded role in rural development program. RC & D project areas in operation, under supervision of Soil Conservation Service, increased from 29 to 44. Extension service devoted 1,100 man years to rural development in 1970. FMHA reported more than 1,000 rural water and waste disposal systems that benefited 1.4 million people were built that year; but 61,000 still were required. |
| 1972 | Rural Development Act of 1972 passed Aug. 30 | RD Act not funded in FY 1972 | The purpose of Title V was to expand rural development educational activities, to provide research in rural development problems, to enhance capabilities of colleges and universities (not just land-grant institutions) in rural development activities, to expand research on small farms and to extend training to small farmers. |
| 1972 | Smith-Lever 3(d) | \$1 million | In essence the act called for additional staffing and stronger funding for ongoing programs. Provided funds for a new position, assistant secretary for Rural Development, USDA. Title I of 1972 Act provided funds through other governmental agencies for water and sewer system loans, community facility loans, waste disposal system loans and business and industry loans. |
| 1973 | Rural Development Act, 1972 | No appropriation under Title V | Six hundred full-time rural development positions worked a total of 1,434 man-years on Cooperative Extension Service time. One hundred twenty persons attended a national leaders school on rural development. Extension service faculty assisted with 46,000 community projects and conducted 10,740 surveys and feasibility studies. |
| 1974 | Rural Development Act of 1972 Smith-Lever 3(d) | \$1.5 million | Cooperative Extension Service devoted nearly 1,500 man-years to CRD (this title now widely used), an increase of one-third over 1971. |
| 1975 | " " " | \$1 million - \$1.5 million | |
| 1978 | " " " | \$1 million \$2.5 million | Number of full-time CRD extension service faculty increased by 50 percent. Extension Service funds increased. |
| 1979 | " " " | \$1 million \$2.5 million | Funds continued at 1972 level. Funds continued at 1978 level. |
| 1980 | " " " | \$1 million \$2.5 million | Funds continued at 1972 level. Funds continued at 1978 level. Incorporated into regular 3(c) extension service appropriations. |

Data extracted from *Annual Reports of the Secretary of Agriculture, USDA, Washington, D.C., 1948 to 1975*; "Cooperative Extension Service Programs: A Unique Partnership Between Public and Private Interests," Extension Service, USDA, Washington, D.C., June 1976; and other sources.

Type of Tasks Performed by CRD Staff

CRD staff members perform many different tasks as they carry out their daily educational activities. The best way to describe them is to quote a research report that was designed to gain insight into how competently the individuals surveyed felt they could conduct their work. The research, conducted in 1968, contacted 308 CRD staff members. The main tasks identified by the 229 that responded were consulting, promoting understanding, teaching, establishing communications, locating resources, organizing groups and designing educational programs. See Table 3.

TABLE 3
Tasks Performed and Competence Indicated
by Number and Percent of CRD Staff

| Selected Tasks | Expressing Competence No. % | Selected Tasks | Expressing Competence No. % |
|---|-----------------------------------|---|-----------------------------------|
| 1. Consult with organizational leaders to service their needs | 202 89 | 10. Guide resource inventories and analyses | 153 67 |
| 2. Assist leaders understand concept of community development | 197 86 | 11. Interpret relevant research | 149 65 |
| 3. Teach leaders and citizens face-to-face groups | 186 82 | 12. Design and map plans for projects | 135 59 |
| 4. Establish communications among development groups | 180 79 | 13. Promote projects and plans | 134 59 |
| 5. Locate needed resources | 179 78 | 14. Involve in applied research | 126 55 |
| 6. Organize development groups | 173 76 | 15. Prepare written materials on controversial issues | 124 54 |
| 7. Design educational programs | 165 72 | 16. Organize and conduct educational tours | 96 42 |
| 8. Lead discussions on public issues | 161 70 | 17. Prepare applications for financial and technical assistance | 91 40 |
| 9. Involve citizens in determining goals and priorities | 158 69 | 18. Participate in educational TV programs | 77 34 |

Cummings, Gordon. *CRD-How Extension Workers Perceive Their Job*. Extension Service, USDA, E.S. Circular No. 568. Washington, D.C.: July 1970.

Some Examples of CRD Efforts

One way to describe what CRD does is to report on some of its accomplishments. The following have been gleaned from the USDA secretary's annual reports which were taken from annual Cooperative Extension Service reports. They were purposely selected to illustrate the wide variety of projects tackled by communities with CRD staff guidance.

- Increased poultry production on farms in Chesterfield County, S.C., brought 58 new jobs to the county (1957).
- Production and marketing of peppers, the first commercial crop in an isolated Tennessee community, grossed \$40,000 for farmers the first year (1957).
- Extension workers (CRD) helped create more than 53,000 jobs this year alone (1968).
- "Operation Hitchhike" (manpower development project) provided 844 job placements in one Virginia county, adding \$4 million in salaries (1972).
- Land was incorporated for 90 housing units to be built on the "self-help" plan by low-income residents in Maryland (1972).
- Through the PRIDE program a small, rural Kansas town was revitalized after the Columbia Broadcasting Company documentary portrayed it as a dying town (1978).

Many other examples of rural development can be cited by representatives from every state extension service as well as administrators of the Farmers' Home Administration, Forest Service, Soil Conservation Service and other USDA agencies. Each successful effort has added a spark to the revitalization process now occurring in thousands of rural communities and small towns across the nation.

Establishing Community Priorities

Citizens in every community, town and city can easily and readily develop a list of problems that concern them. The task CRD staff and community leaders face is how to identify these problems and how to rank them in order of priority. To do this, surveys are usually conducted.

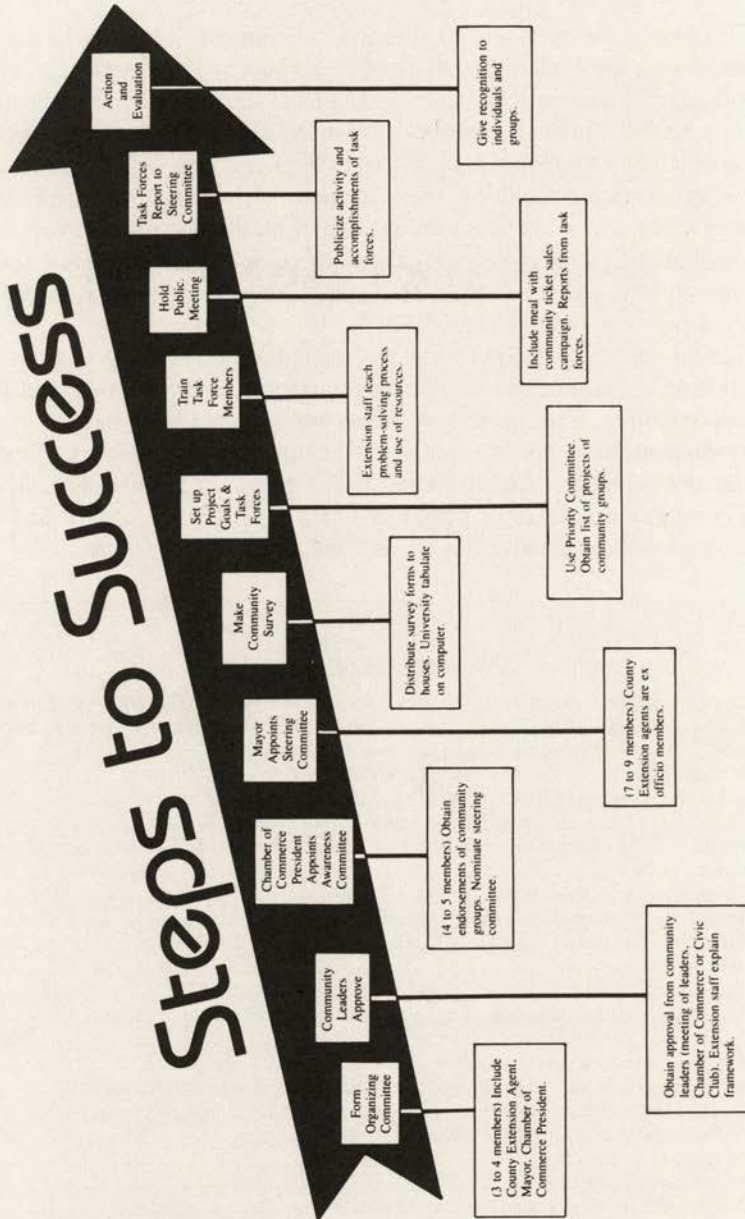
Most people usually respond freely and thoughtfully when asked important questions about where they live and work. Community surveys, however, take a great deal of time, effort and some expertise. They also involve a series of steps. The essential steps are best illustrated with a model developed by Frazier, a state specialist in CRD with the Kansas Cooperative Extension Service. See Figure 1.

Some of the key elements required for an effective community improvement movement can be identified from this model. Briefly stated, these elements are

- the process of community development can be learned;
- goal setting;
- individual and group commitments;
- alternative solutions to problems examined and clarity of implications;
- time allowed for emergence of trust among people;
- motivation results when people have opportunities for achievement and receive recognition;
- citizens are more apt to support what they help create;
- motivation is encouraged when citizens feel the community goals are the same as their individual goals;
- use of resource persons facilitate the process of community development;
- recognition that many people have security, ego and social needs they want to fulfill;
- use of unique talents of individuals;

FIGURE 1

The La Crosse* Model—A Framework for Setting and Reaching Goals in Total Community Development



*A small town (17,783 population) in west central Kansas.

Frazier, L. P. *Steps to Success: A Kansas Town on the Move*. Kansas State University, Cooperative Extension Service, Publication No. C-587. Manhattan, Kan.: March 1978.

- unified efforts encourage enthusiasm and a positive attitude for achievements;
- involvement of the most creative persons in the community from the beginning and people who anticipate problems and generate opportunities for progress.²

Of course, the best way to determine community needs is to ask the citizens living there what they think of the situation. For example, a survey composed of 41 questions was delivered by local steering committee members to every rural and urban household (184) in the small town of Westmoreland, Kan., which had a population of 567 in 1976. The questions asked, "Are the following (services, facilities, etc.) adequate?" Respondents checked the corresponding *yes*, *no* or *don't know* column on the one-page survey form. One hundred fifty-nine completed or partially completed forms were returned. The responses presented a revealing picture of how those people viewed the needs of their community.³ See Table 4.

Similar studies or surveys have been conducted by CRD specialists. The common needs most often identified are recreation, land use, youth and adult job opportunities, housing, transportation and health care services.

Finding existing needs is only the beginning of CRD work. Finding satisfactory solutions to meet the needs and problems is more difficult and usually takes a considerable period of time, but CRD has done it and will continue to make a positive impact on community improvement.

TABLE 4
Westmoreland Survey

The following are the results from the Westmoreland Survey. The answers are listed in descending order according to the "yes" answers. They were asked, "Are the following adequate?" Number 1 rated the highest and number 41 the lowest.

| | |
|---|-----|
| 1. Is the lighting of our business district adequate? | 115 |
| 2. Is the fire protection system adequate? | 90 |
| 3. Would you like to see a plan for community development? | 87 |
| 4. Public buildings attractively landscaped with trees and shrubs and grounds mowed and maintained | 86 |
| 5. Ample parking in the business district | 84 |
| 6. Should the city provide a summer recreation program? | 83 |
| 7. Parks and playgrounds attractively landscaped with trees and shrubs well maintained | 82 |
| 8. Highway entrances landscaped, mowed, and maintained | 79 |
| 9. Should equipment in the park and playgrounds be increased? | 77 |
| 10. Competence and appearance of clerks in stores | 76 |
| 11. Are the entrances of town attractive? | 71 |
| 12. Is the appearance and desirability of the homes in our community adequate? | 69 |
| 13. Do the elderly or handicapped homeowners need assistance in their property improvement and maintenance efforts? | 63 |
| 14. Availability of carpenters | 61 |
| 15. Availability of painters | 54 |
| 16. Ample shade trees along streets in residential areas | 51 |
| 17. Ample ornamental plantings in downtown area | 50 |
| 18. Are there any signs that should be removed? | 48 |
| 19. Adequate areas in parks and playgrounds | 47 |
| 20. Availability of plumbers | 47 |

| | |
|--|----|
| 21. Dilapidated houses removed or plans made for improvement | 47 |
| 22. Should recognition be given for the most improved yard of the month or week? | 46 |
| 23. Eating establishment | 46 |
| 24. Availability of mechanics | 44 |
| 25. Is our city zoning adequate? | 42 |
| 26. Availability of electricians | 40 |
| 27. Business district clean and attractive | 37 |
| 28. Waste receptacles conveniently located in all business districts and emptied regularly | 34 |
| 29. Availability of housing for people with different levels of income | 31 |
| 30. Community free of old car bodies | 31 |
| 31. Mobile home courts attractively landscaped with trees and shrubs | 28 |
| 32. Vacant lots and unoccupied areas mowed and kept free of weeds and litter | 27 |
| 33. Promotion of retail trade | 22 |
| 34. Streets, sidewalks and gutters cleaned and adequately maintained | 22 |
| 35. Insect and rodent control | 21 |
| 36. Availability of retail items | 18 |
| 37. Job opportunities | 18 |
| 38. Availability of services | 14 |
| 39. Cultural opportunities | 11 |
| 40. Availability of dental services | 11 |
| 41. Availability of "other" services | 2 |

CRD is a process of using group and organized action to improve the well-being of a community. It involves a series of processes, each building on an earlier one, but all geared for the same general objective—to improve the quality of life. Thus, the goals of a community and the Cooperative Extension Service are interdependent and closely allied. If progress at any level is achieved, both groups are pleased. The degree of progress toward objectives in CRD, however, is hard to determine, just as it is in other extension program areas. Criteria are needed for looking at the effectiveness of extension programs; CRD is no different.

Cummings has developed eight major and three minor criteria for evaluating CRD programs. As a composite they are really a review of the CRD process.

Major

- degree of citizen involvement in planning and development;
- local orientation (identification with) to problems and issues;
- education (content and methods) designed for action;
- focus on a quality environment;
- factual information essential;
- staff flexibility based on periodic review (evaluation);
- adequacy of organization(s) to achieve development;
- cooperation with educational agencies.

Minor

- the importance of reviewing several alternative solutions to problems;
- evidence of continuity, sequence and subject matter integration in educational programs;
- evidence that leaders are adequately trained to do their jobs, are informed about economic and social conditions and have improved the quality of decisions made over time.⁴

All extension efforts need to be supported by other disciplines, but CRD probably requires more interdisciplinary assistance than the others. As in all

extension program areas, CRD efforts have no end because there is always a higher or more long-range objective to be tackled once the last one has been achieved.

Notes

¹Jenkins, John W. *Historical Overview of Extension*. Extension Service, USDA. Unpublished mimeo, April 1979.

²Frazier, L.P. *Steps to Success: A Kansas Town on the Move*. Kansas State University, Cooperative Extension Service, Publication No. C-587. Manhattan, Kan.: March 1978.

³⁻⁴Frazier, L.P. *WESTMORELAND: Activities and Action Stir Community Pride*. Kansas State University, Cooperative Extension Service, Publication No. C-579. Manhattan, Kan.: September 1977.

14



Evaluation in the Cooperative Extension Service

Evaluation has received a great deal of attention in extension service circles, partly because of the mandate in Section 1459 of the Food and Agriculture Act of 1977 where Congress instructed the following.

The Secretary shall transmit to Congress, not later than March 31, 1979, an evaluation of the economic and social consequences of the programs of the Extension Service and the Cooperative Extension services, including those programs related to agricultural production and distribution, home economics, nutrition education (including the Expanded Food and Nutrition Education Program), community development, and 4-H Youth programs.

A Concept of Evaluation

The word "evaluation" is derived from the French word *evaluer* which means "to value." Some form of "value" or "valuing" is involved in any evaluation.

Evaluation in education has been defined by Stufflebeam as "the process of delineating, obtaining and providing useful information for judging decision alternatives."¹

This statement includes a number of terms that have special implications for a definition of evaluation, such as

- **process** - a particular activity including many methods and involving a number of steps and operations;
- **delineating** - focusing the information requirements to be served by the evaluation through such steps as specifying, defining and explicating;
- **obtaining** - making available through processes such as collecting,

organizing and analyzing and through formal means such as statistical analysis measurement and data processing;

- **providing** - fitting together into systems or subsystems that best serve the needs or purposes of the evaluation, and reporting the information to the decision maker;
- **useful** - satisfying the practical and prudential criteria of relevance, importance, scope, credibility, timeliness, pervasiveness and efficiency and pertaining to judgmental criteria to be used in choosing among decision alternatives;
- **information** - descriptive or interpretive data about entities (tangible or intangible) and their relationships (data becomes information that is useful as evidence in judging);
- **judging** - the act of choosing among decision alternatives; the act of decision making;
- **decision alternatives** - two or more different actions that might be taken in response to some situation requiring action.

Evaluation can be specialized. *Formulative evaluation* refers to evaluations used to facilitate the decisions made as a program progresses. The evaluation stays within the agency and serves to improve the product. *Summative evaluation* is an end-of-program evaluation that summarizes the effects of a program for final decisions on materials and effects.

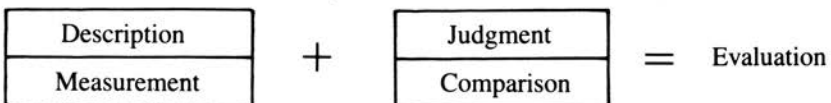
More recently, the term *impact evaluation* has evolved. This evaluation involves the purposes or significance of activities. It deals with the consequences of projects, program components and other activities that may be planned or unplanned. It is concerned with the change or impact an activity or program had on the environment.

Evaluation and Judgment

Program evaluation effectively uses a decision-making process. This involves

- clearly identifying the nature of the decision to be made;
- considering means for arriving at the decision;
- securing information essential to reaching the decision;
- examining alternative decisions which could be made based on observation;
- selecting and supporting the best alternative;
- considering the implications and consequences of the decision.²

For sound decision making, sufficient and relevant facts are needed as well as criteria, rules or standards against which findings can be compared. The following illustration helps clarify this explanation:



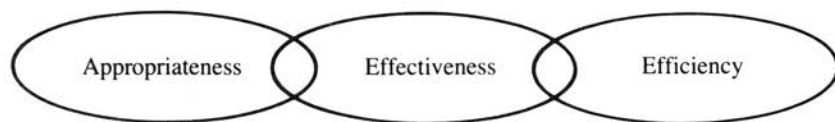
Two major actions are involved:

1. **description** - acts concerned with securing, organizing and reporting information;
- **judgment** - acts concerned with assigning meaning, determining relationships, identifying relative importance and arriving at conclusions.

In order to have an objective base for consideration, accurate description involves measurement. Unfortunately, all descriptive data cannot be measured, and all that can be measured is not essential to a description. Also, measurement is a means, not an end in itself.

Judgment is the part of the evaluation process which assigns worth and value. This is the heart of the evaluation process. Judgment involves comparison, or the comparing of the description of the program being evaluated with some criterion. *A criterion is the standard used in judging.* In other words, a criterion or a composite set of criteria is a definition of "what should be." It is the base against which judgments are made about what actually is.

Value is defined as "the worth of a thing" and as "the quality of being excellent, useful or desirable." Value must be considered in terms of worth, usefulness or desirability to someone or some group of people. Value is often assigned according to certain aspects or characteristics of something, for example, a program. The major aspects used to determine the value of a program are:



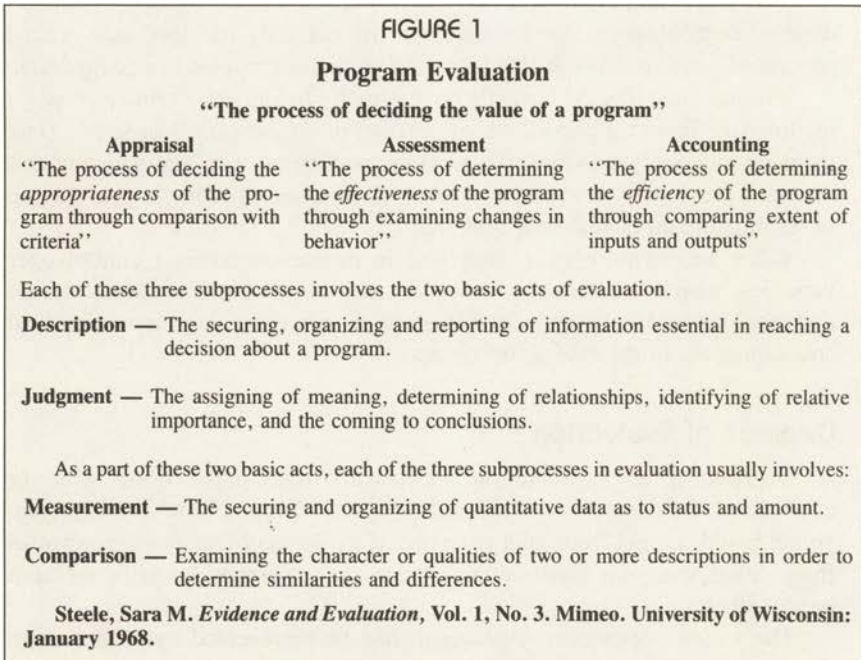
These aspects are closely linked together. Their relationships need to be considered.

Appropriateness considers suitability of the extension program to the specific individuals who participate and the image it gives as a representative of the discipline and the sponsoring agency. Appropriateness considers answers to questions such as: To what extent is the program meeting the needs of the community? Could a more suitable program have been chosen? Do the participants like the program? Is what they learned important to them? Were the right things emphasized? Was it well-timed? Were the teaching methods adequate? Judgments of appropriateness are based on a specific program. They do not consider the "products" of that program.

Effectiveness measures program accomplishments in terms of changes in behavior of participants. Two aspects or dimensions of program effectiveness are usually considered. These are maintenance and accomplishment. Program maintenance includes such things as the number of people who participated in a program, the length of time they were willing to participate, the extent to which they invested time and energy in program leadership, and the image(s) the community holds of the program. Program accomplishment is concerned with the extent to which the program helped participants change their behavior (level of knowledge, skill, attitudes or aspirations) and the result of these changes in the environment. Judgments of effectiveness are based on program products.

Efficiency compares input with results. It involves consideration of time, resources and effort expended in terms of accomplishment. It attempts to answer such questions as: What is the yield from the program in terms of the cost involved? How does this yield compare with other programs? How does it rate when compared with the yields of other programs in which the resources could have been used? Efficiency deals not only with value but with cost effectiveness. Administrators and planners must look at the cost of extension service's many program areas. Thus, efficiency must be considered when extension programs are evaluated.

Steele concisely summarized "What is Evaluation" in Figure 1.



Evaluation or Research

Evaluation must not be equated with research. Even though evaluation uses many of the processes identified with research, the goals are different.

The aim of research is to develop new knowledge. Such knowledge may not be applicable for practical use. The goal of evaluation is to provide enlightenment for making decisions on future programs or for making improvements in ongoing programs. The use of control groups, the selection of matched groups of participants and other experimental research techniques are not necessarily required in evaluation studies.

The evaluation process has a direct bearing on good program building. Evaluation should be an integral part of each step in program planning because it

1. helps to establish a "bench mark" (starting point);
2. shows how far plans progress;
3. shows whether plans are proceeding in the right direction;
4. indicates the effectiveness of a program;
5. helps locate strong and weak points in any program or plan;
6. improves participants' skills in working with people;
7. helps to determine priorities for activities in a plan of work;
8. brings confidence and satisfaction to participants.³

Each extension program should have specified educational objectives. Generally, the aim of extension service is to bring about positive change in the learners, and through them, to favorably affect other individuals and groups.

By discovering and measuring the effectiveness of programs, projects, methods and materials used in an extension education program, evaluation directly contributes to the improvement of not only the total educational process of a community but also extension programs provided in a community.

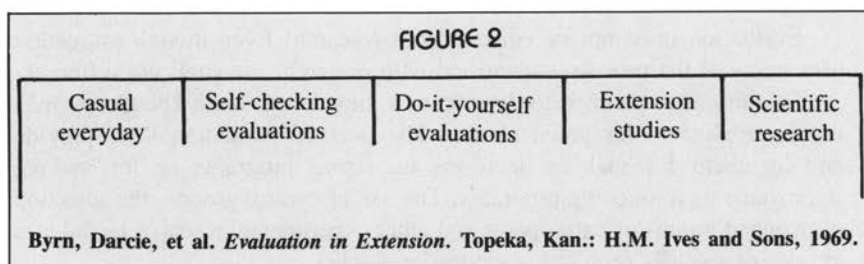
Information collected formally or informally before and during a program provides the input for periodic determination of the program's progress. Data gathered and analyzed when the program ends along with that gathered and analyzed previously serve as a basis for decisions about continuing, changing or terminating an educational program.

Value judgments play a large part in evaluation because control over variables, which is essential to research, may not be possible. Many testing and measurement techniques used in research, however, are at times practical and applicable to the evaluation process.

Degrees of Evaluation

Degrees of any observation are usually represented on a scale or continuum. Temperature is measured on a scale from cold to hot; age from young to old; weight from light to heavy. The continuum for evaluation varies from casual, everyday observations on one end to planned scientific research on the other.

The various degrees of evaluation may be represented by a continuum showing such levels as indicated in Figure 2.



Casual, everyday evaluations include the decisions and judgments people make every day about everyday things without consciously considering

the principles of evaluation. First impressions of people and programs are examples of this degree of evaluation.

Self-checking evaluations represent a conscious effort to apply the principles of evaluation. It involves analytical thinking on the part of the person concerned with the program. Extension agents may ask questions to themselves as they compare their feelings on a program with other information and observations. Self-checking involves using others as a check on personal observations.

Do-it-yourself evaluations involve more planning and application of the principles of evaluation than do self-checking evaluations. They are done systematically and can demand some technical help. The agent is the primary one involved in this kind of evaluation. If the purpose of evaluation is to improve, then this merits consideration. Corey wrote, "One of the psychological values of action research is that the people who must, by the very nature of their professional responsibilities, improve their practices are the ones who engage in research to learn what represents improvement."⁴

Corey also noted

... learning that changed behavior substantially is most likely to result when a person himself tries to improve a situation that makes a difference to him. When he defines a program, hypothesizes actions that may help him cope with it, engages in these actions, studies the consequences and generalizes from them, he will more frequently internalize the experience than when all this is done for him by someone else, and he reads about it.⁵

Corey's observations give ample reasons why the individual extension worker should engage in do-it-yourself evaluations, or as he termed it, "action research." If improvement in practice is to be made, it will more likely occur if the person involved in making the improvement has been involved in the study of the practice to be changed.

One common form of do-it-yourself evaluations uses the end-of-meeting evaluation. See Figure 3. This allows for feedback from participants that could be used to make improvements.

Other forms of do-it-yourself evaluations survey a sample of participants after a program ends, perhaps even three or six months later. This helps to determine the extent of the program's impact.

FIGURE 3

End-of-meeting evaluation

The one in charge of this meeting needs help. Here is where you can let down your hair and really tell what you thought of the meeting. You do not need to sign your name, so say what you like. Check the answer you think is best.

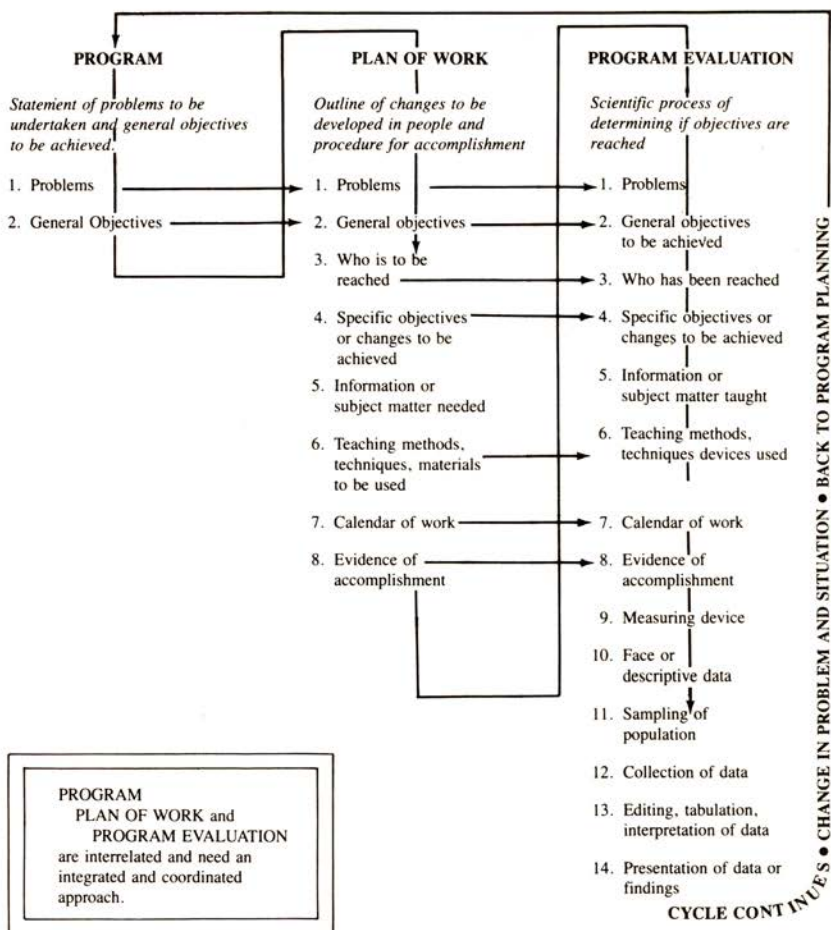
1. To what extent did this session meet your expectations and touch on your concerns about following up on a program?

| | | | | | |
|-----------------------|--------------|------|------------|--------|---------------|
| Beyond expectation | Very good | Good | Acceptable | Little | Not at all |
|-----------------------|--------------|------|------------|--------|---------------|

2. How do you feel about this session from the standpoint of:

FIGURE 4

Extension Service Program, Plan of Work and Program Evaluation



Prepared by J. Neil Raudabaugh, Program and Staff Development, Extension Service, USDA, Washington, D.C.

There are several approaches to the evaluation process. Many of these are similar. Common steps include the following.

1. **Select and identify the program, project, activity, method, job or situation to evaluate.** Why have you chosen to evaluate this project, activity or job? What has been going on that has aroused your interest? Why is it worth your time to evaluate it?

2. **Determine the purpose to be achieved by doing the evaluation.** What are you trying to find out? Are you trying to measure the extent to which the

objectives were met? Are you trying to determine the impact the program has had on the audience? Are you trying to determine the effectiveness of different methods of teaching? Some questions that may help you think through the purpose for an evaluation are:

- a. Can you clearly state the goals of the study?
- b. Do these goals describe an effort worth doing?
- c. Are you familiar with the characteristics of the persons from whom you will request information?
- d. Have you estimated the cost in terms of time and money?

3. Determine the audience for the evaluation. Who has an interest in the results of an evaluation? Who will be making judgments and decisions based on the findings of the study? The audience for the evaluation may be the professional extension worker, an advisory committee, a supervisor, an extension council or others. An evaluation study cannot provide “all things to all audiences.” But in the evaluation, the interests of the specific audience should be identified so that the data collected will provide information specific to the requirements of that particular audience.

4. Determine the issues that are expected to be identified. These issues will determine the questions that should be asked so that the right information will be available to serve as evidence in making evaluative judgments. If all issues cannot be addressed with the available resources, a priority of issues must be determined. This ranking can be used to help decide which issues should be included in the evaluation study.

Hatry, Winnie and Fisk, of The Urban Institute, have developed the following criteria for selecting issues for program evaluation.

- *Can results of an evaluation influence decisions regarding a program?* Programs for which a decision regarding continuation, modifications or termination are obvious candidates for evaluation.
- *Can the evaluations be done in time to be helpful to decision makers?* An evaluation that is completed after a decision has to be made is useless.
- *Can the evaluation be done?* Is there sufficient data obtainable on the important effects of the program? Program evaluations can never resolve all questions, but before beginning it should first be clear that it will be possible to collect meaningful data on significant aspects of the program.
- *Can sufficient resources be obtained to meet the time schedule and the technical requirements of the evaluation?* Do you have sufficient time and help available to get the evaluation done by the time a decision is required?
- *Has the program been stable enough so that an evaluation study will provide relevant information?* If a program is constantly changing or is about to change, it may not be a good candidate for evaluation.
- *Is the program significant enough to merit the evaluation effort?* You may want to consider programs that use large amounts of resources or those programs which have important benefits and possible negative consequences to the public. Thus, the likely cost of the evaluation can be compared to the possible decreased cost or improved effectiveness that could result. Is it a program suspected of being marginal in performance? Is the program a candidate for expansion?⁶

5. Determine the data to be collected as evidence to resolve the issues in the evaluation so that the purpose of the evaluation may be achieved.

Evidence can take many forms. The quality of evidence can be assessed by considering the relevance of the data to the issues and audience, the balance and scope of the evidence, the degree to which the data-gathering instrument collects measures of the objectives it is supposed to measure, the consistency of the responses composing the data, the degree to which side effects and other unanticipated outcomes have been or can be identified, and the degree to which the evidence is believable.

Only data needed to assess the issues in question should be collected. Data that are “nice to know” but not essential to the evaluation should not be collected.

Claude Bennett of Extension Service, USDA, has identified a hierarchy of evidence for program evaluation. This hierarchy orders the levels of evidence that may be used to assess a program. Bennett has identified the chain of events that usually characterize most programs of extension education. The chain of events, along with evidence for assessment, is given in Figure 5.

FIGURE 5

**Events in Extension Program Development/Implementation
and Evidence for Assessing Program Effectiveness**

| Events | Evidence for Assessment |
|-----------------------|---|
| 7. END RESULTS | Changes evidenced in individuals, groups, organizations, communities; comparison to planned objectives; extent of prevention, checking, reduction, or solution of problem. |
| 6. PRACTICE CHANGE | Measures of change in behavior of clients before/after group changes; individual innovation; structured changes in group or organizations, laws, facilities |
| 5. KASA CHANGE | Measures of direction and extent of changes in individual or group knowledge, attitudes, skills, aspirations; continuity of change; methods of demonstrative change; comparison to planned change. |
| 4. REACTIONS | Number and type of reactions received from clients and non-clients regarding programs; description of attempts made to determine reactions; expression of interest in programs; acceptance of program leadership. |
| 3. PEOPLE INVOLVEMENT | Involvement of numbers of individuals, groups, communities, in activities; description of participants, staff and volunteers in terms of socioeconomic and psychological characteristics; continuity, frequency, intensity of face-to-face contacts with clientele; number of nonpersonal contacts between extension and clientele. |
| 2. ACTIVITIES | Conducting specific activities to bring about education such as publicizing programs, arranging or conducting meetings, preparing materials, demonstrating techniques, training staff and volunteers, collecting data, transmitting subject matter using various methods. |
| 1. INPUTS | Commitment of resources such as man hours of time expended by staff, volunteers and resource people, staff qualifications, budget allocation for expenses. |

Bennett, Claude F. *Analyzing Impacts of Extension Programs*. Extension Service, USDA, ESC 575. Washington, D.C.: 1976.

Bennett also identified some guidelines that are useful in using the levels of evidence in evaluating programs. These are

- evidence of program impact becomes stronger as the hierarchy is ascended;
- the difficulty and cost of obtaining evidence on program accomplishments generally increase as the hierarchy is ascended;
- evaluations are strengthened by assessing extension programs at several levels of the hierarchy including the input level;
- the higher the cluster of evidence for program evaluation, the more useful the evidence for making decisions on present and future programming;
- evaluation is strengthened to the extent the specific criteria for evaluation are defined prior to the conduct of the extension program;
- evaluations are strengthened to the extent that validity of observations has been demonstrated;
- the harder the evidence for evaluation, the more an evaluation may be relied upon for program decision making. Table 1 has some examples of hard and soft data for each of the levels in the hierarchy.⁷

TABLE 1
Examples of Hard and Soft Data in a Hierarchy of Evidence for Program Evaluation

| | “Hard” data | “Soft” data |
|-----------------------|--|--|
| 7. End results | Trends in profit-loss statements, life expectancies, pollution indexes, and satisfaction with health. | Casual perceptions of changes in quality of health, economy, and environment |
| 6. Practice change | Direct observation of recommended farm practices over a series of years | Retrospective reports by farmers of their use of recommended farm practices |
| 5. KASA change | Changes in scores on validated measures of knowledge, attitudes, skills and aspirations | Opinions on extent of change in in participants’ knowledge, attitudes, skills, and aspirations |
| 4. Reactions | Extent to which random sample of viewers can be distracted from watching a demonstration | Recording the views of only those who volunteer to express feelings about demonstration |
| 3. People involvement | Use of social participation scales based on recorded observations of attendance, holding of leadership positions, etc. | Casual observation of attendance and leadership by participants |
| 2. Activities | Prestructured observation of activities and social processes through participant observation, use of video and audio tapes, etc. | Staff recall of how activities were conducted and the extent to which they were completed |
| 1. Inputs | Special observation of staff time expenditures, as in “time and motion” study | Staff’s subjective reports regarding time allocation |

6. After deciding on the kind and level of evidence to be collected, the evaluator should decide on the amount of data to collect and from what

sources the data should be collected. Data sources are the people or things that provide the information that will serve as evidence about the program. The proportion and representativeness of the data sources need to be considered. In data gathering, consideration must be given to ethical questions, such as invasion of privacy, and the treatment and interpretation of the data. Constraints imposed by limitations of various resources must also be taken into account.

Various data gathering strategies should be scrutinized. Thought must be given to the appropriateness, including cost, of various data gathering techniques, such as mailed questionnaires, interviews and direct observation. Some means of data gathering are more obtrusive on program operations than others.

Data are gathered by asking questions. Selecting or deciding the questions to ask is important. Some points to keep in mind when developing a set of questions to collect information for an evaluation study include:

- Does each question ask for only *one* bit of information?
- Does the question wording imply a desired answer?
- Do any words in the question have double meanings which may cause misunderstandings?
- Do any of the questions contain words unfamiliar to the respondents?
- Are any of the questions emotionally loaded, vaguely defined or too general?
- Does each question relate to some purpose of the study?
- Do the questions follow a logical order or sequence?

Also consider: From whom should the information be requested? Who will have the information that will supply the answers to the questions? Will all of the eligible respondents or just a sampling of them be asked the questions? How will this sampling be done if it is appropriate?

Other considerations involve time. When will this be done? Who will collect the data?

7. The gathered data must be analyzed in order to determine what the information says about the program. Data needs to be ordered and analyzed so that meaning can be determined. This meaning can then be used as evidence in considering the issues related to the program. Good data analysis will help evaluate descriptions of the program. It may document changes in a program over time, or help compare impacts, processes or outcomes of current, previous or similar programs.

Evaluation data can be analyzed in many ways. The choice of the analysis technique will depend on the nature of the data to be analyzed, the purpose of the analysis, and the resources available for analysis. Sophisticated analysis performed on inadequate or inappropriate data may lead to false implications and conclusions.

The relations and comparisons to be made and the statistical procedures to be used should be well within the comprehension and understanding of the users of the evaluation study.

8. The payoff of an evaluation effort comes when the findings are

reported (or communicated) to the audience for the evaluation. The report should be presented in such a way that the findings are organized according to the decision and judgment to be made.

The audience for the evaluation should be kept in mind when preparing a report. It is important to understand the criteria, standards and indicators which an audience might have in mind as it considers a program. The mode of presentation (oral, written, visual), the format and the date of the report are important. Be sure to present the findings of an evaluation study in language that the audience for the report will relate to and understand.

Resources

When planning a systematic evaluation, keep in mind the resources involved, including personnel, time and money. Knowing in advance the available resources can help set the boundaries for the evaluation.

Evaluation is an important and integral part of the program-development process. It provides a systematic way of studying extension programs. Its purpose is not to prove, but to improve programs.

Some additional references on the evaluation process are:

Mulford, Charles, et al. *Organizational Effectiveness and Impact: A Planning Guide*. Iowa State University, Sociology Report No. 136. Ames, Iowa: August 1977.

Kish, Leslie. *Survey Sampling*. New York: John Wiley and Sons, 1965.

Steele, Sara M. *Contemporary Approaches to Program Evaluation*. Syracuse, New York: ERIC Clearinghouse on Adult Education, 1973.

Worthen, Blaine R., and James R. Sanders. *Educational Evaluation Theory and Practice*. Worthington, Ohio: Charles A. Jones Publishing Co., 1972.

Analyzing Impacts of Extension Programs. Extension Service, USDA, ESC 575. Washington, D.C.: 1976.

Evaluation Planner for Extension. Extension Service, USDA, ESC 585. Washington, D.C.: 1977.

Notes

¹Stuffelbeam, Daniel, et al. *Educational Evaluation and Decision Making*. Itasca, Ill.: Peacock Publishers, 1971.

²Steele, Sara M. *Evidence and Evaluation*, Vol. 1. No. 3. Mimeo. University of Wisconsin, January 1968.

³Kesley, L. D., and C. C. Hearne. *Cooperative Extension Work*, 3rd ed. Ithaca., N.Y.: Cornell University Press, 1963.

⁴⁻⁵Corey, Stephen M. *Action Research to Improve School Practices*. New York: Columbia University, 1953.

⁶Hatry, Harry P., Richard E. Winnie and Donald M. Fisk. *Practical Program Evaluation for State and Local Government Officials*. The Urban Institute, Washington, D.C., 1973.

⁷Bennett, Claude F. *Analyzing Impacts of Extension Programs*. Extension Service, USDA, ESC 575. Washington, D.C.: 1976.

15



Issues and Considerations for the Cooperative Extension Service in the 1980s.

Education is the foundation on which all change in a fundamental and progressive sense is based. The Cooperative Extension Service, the educational arm of the USDA, was assigned the task of offering informal education to rural people under terms of the Smith-Lever Act of 1914. Change in rural America, however, had been promoted for nearly 50 years before 1914 by land-grant college faculty and USDA specialists.

An outgrowth of the Smith-Lever Act today is the dynamic partnership of U.S. citizens, their local county government, the state land-grant universities and their respective state extension services and the USDA. The work of this partnership has become known as extension education. It is now recognized as the catalyst for individual, group and community action.

The primary task of extension education is that of disseminating practical and useful information on a broad range of subjects from research centers and the universities to the public at large. The role of extension education's professional staff, consisting of more than 17,000 persons located in more than 3,000 counties across the nation, is to present unbiased facts that help people identify their problems and needs and to guide and assist them in making their own decisions to solve these problems, using the latest and most appropriate technology available.

Until the early 1950s rural citizens were the only intended recipients of this informal educational system. That changed when citizens in towns and

urban centers began to demand similar attention. The Cooperative Extension Service, being a tax-supported institution, is obligated to offer its assistance to all citizens. The Civil Rights Act of 1964 made this point of law, and now extension programs are open to all citizens regardless of race, color, national origin, sex or handicap.

The Cooperative Extension Service operates as a very decentralized organization. Extension programs follow the broad guidelines of national objectives and priorities. These national objectives are balanced against state and local requirements, and great latitude is permitted in their adoption to meet local needs and desires.

The word *cooperative* fits the system very precisely in two ways. First, educational programs are developed by guidelines and suggestions from the federal level that are incorporated into state programs, which in turn reflect the needs of local citizens. Secondly, federal, state and county tax revenues are used to financially support the program. Private or nontax receipts are available, but on a limited basis and usually for certain, specified purposes.

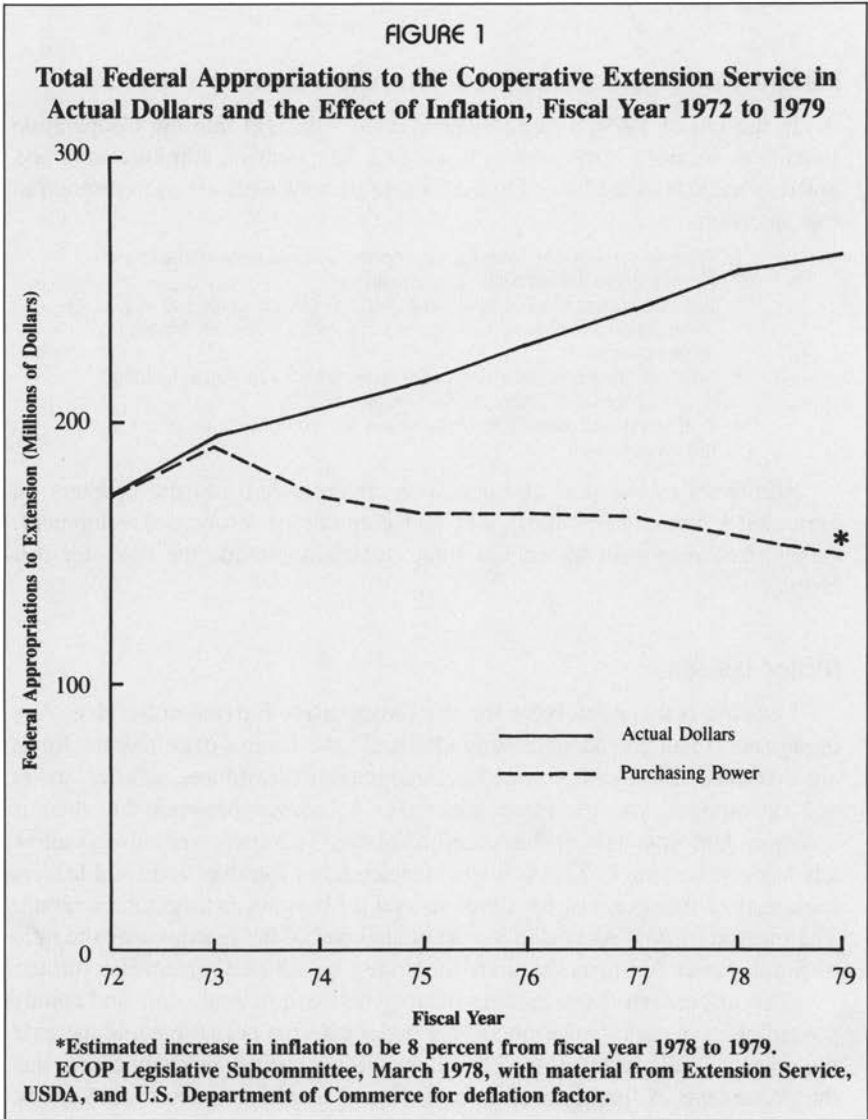
Present Situation

The Cooperative Extension Service offers to the public an efficient and nationwide system for lifelong learning. In some states educational programs are open to children as young as seven years of age through 4-H clubs. Many women are still active in quality of living, more commonly referred to as home economics, programs in their 70s and 80s. Many young farmers gain entry into agriculture through participation in 4-H. Knowledge, skills and favorable attitudes toward agriculture are nurtured by this participation. Project activities, often resulting in sizable financial amounts, provide an entry into a capital-intensive agriculture that might not otherwise be possible. An equal number of young women acquire a basic knowledge and accumulate valuable skills related to home and family life that they might not have a chance to learn anywhere else. Thousands of communities have come alive because of community improvement and rural development activities spear-headed by extension agents and specialists.

The present magnitude and dynamics of our technological society demand that lifelong learning opportunities be available so citizens will be better prepared to meet the social, cultural, occupational and environmental problems and challenges of the future. Naturally, the Cooperative Extension Service is not the only organization or agency concerned with these situations, but it is uniquely qualified to bring new and reliable information to people in both the public and private sectors.

In fiscal year 1979 the combined expenditures of extension service at the federal, state and county levels reached \$635 million. This seems like a huge amount of money, yet USDA appropriations have not kept pace with inflation. USDA allocations for extension service crossed the \$200 million mark in fiscal year 1974 and reached nearly \$264 million in fiscal year 1979. The

purchasing power of these funds, however, has declined dramatically, as Figure 1 clearly illustrates.



In recent years funds from state and county sources have increased dramatically to fill the void left by deflated federal dollars.

From fiscal year 1976 to fiscal year 1979, state funds increased by 18 percent, county support by 22 percent and nontax support by 55 percent. On the other hand, federal funding of the Cooperative Extension Service was 17.4

percent of the total USDA budget in 1920, 6.1 percent in 1930 and only 1.4 percent in 1979. Now total financial support of extension service is roughly 41.6 percent federal money, 34.7 percent state, 16.6 percent county and 2.1 percent nontax funds.

Insight into the Cooperative Extension Service

In the fall of 1979, a questionnaire titled, "Insight into the Cooperative Extension Service," was sent to a selected 52 extension administrators and noted specialists in the United States. These persons were asked to respond to four questions:

1. What do you consider to be the major priority program needs in the area for which you are most directly responsible?
2. In a broader and more general sense, what do you see as the five major issues (problems/concerns) facing the Cooperative Extension Service in the next decade?
3. Will you please identify five major strengths we can use in building future Cooperative Extension Service programs?
4. Will you please identify five weaknesses we should strive to correct in the decade ahead?

Responses to the first question were incorporated into the chapters on agriculture, home economics, 4-H and community resource development. Categorized responses to the last three questions provide the basis for this chapter.

Major issues

Funding is a critical issue for the Cooperative Extension Service. Any organization must be adequately funded and have control over how the funds are expended. Extension service has three major expenditures: salaries, travel and operating costs, including materials. A balance between the three is essential. Unfortunately, government-mandated programs do not always allow a balance to be struck. That is why extension administrators and local leaders must realize that concern for funds should go beyond just the total amount. The method of funding is also important and one of the reasons why the ratio of Smith-Lever Act formula funds should not be allowed to decrease further.

Also of concern is the funding balance between federal, state and county governments. County governments are under extreme pressure not to increase the present levels of taxation. This makes it imperative, in many cases, that the percentage of funds raised from state and federal sources should not be allowed to decrease.

Publicity and public relations are other issues. They are not the same, but they are definitely related. Study after study has revealed that a substantial majority of people, especially those in towns and urban centers, are not aware of the Cooperative Extension Service or what it has to offer. Or, if they are aware of it, they feel it is only for people living on farms. Significant efforts over the past five to eight years have tried to reduce this publicity gap, but it is

still a broad one.

Public relations, on the other hand, involves keeping volunteer leaders, elected officials and administrators informed of what extension service is doing, how it is doing it and what it could be doing. These decision makers must continually be updated on the dynamic and ingenious situations developed by extension service. No one can be expected to support a program or vote for a funding authorization if they do not know what the organization is doing.

Accountability is another major issue. It has a close relationship to evaluation, which is really a basic problem. Over the years Cooperative Extension Service administrators have not stressed evaluation enough. This holds true at the federal and state levels. Undeniably, evaluation of an all-encompassing, informal education program like extension service is extremely difficult because of the many intangible benefits that cannot be isolated and measured with any degree of precision. Evaluation requires considerable resources if it is to be done correctly and on a broad base. Facts, interpretation of these facts and resulting judgments form the knowledge base on which accountability rests. Over the years extension service has made broad claims in vague and general terms about how much it has accomplished. The new Accountability/Evaluation (A/E) System was designed to report extension service's impact in a more precise and accurate form.

The Cooperative Extension Service must also stress establishing priorities. For too long county agents and advisory committees have added programs, projects and activities without eliminating or reducing the emphasis of any activity. Thus, resources are spread thin over many areas of action. Although weeding out any program is difficult, it is becoming more and more critical.

Local advisory committees can assist in this endeavor because they are most familiar with local situations and needs. Agents must learn that these local committees are valuable assets and can help set priorities as well as sell a program based on those priorities. Area and state specialists also need to be more conscious of local priorities as they work with county personnel in developing area and state programs.

Competent staffing is an important issue in extension service just as it is in any organization. Competent staff members are essential to the development, implementation and evaluation of quality programs. Selection of the most qualified and able persons to do a job, however, is just the first step. Staff development in the form of professional improvement opportunities is essential to the long-term growth of extension service. Recognition of the experience and ability of the most able staff members should be formalized in terms of promotion, salary increases and public recognition if the Cooperative Extension Service is to recruit and retain the most qualified persons available.

University support for and understanding of the Cooperative Extension Service is an issue that is becoming increasingly important and more essential to secure resource allocations as dwindling funds fall short of

demands. As the urban to rural population ratio increases, the pressure for rural-oriented programs sponsored by land-grant universities decreases. And as more universities extend their outreach programs in the form of continuing education and general extension activities, confusion with the Cooperative Extension Service sets in and competition for limited resources intensifies.

Parties on both sides of the campus fence can be chastised for this state of affairs because neither party goes out of its way to communicate its concern, mission and needs to the other. In most universities a need exists for a more coordinated and efficient outreach program.

A related issue is infringement on the Cooperative Extension Service's traditional outreach function. An increasing number of colleges, universities and governmental agencies are initiating extension-type activities of their own. This is apparent at the federal level, even within USDA, where agency heads are establishing their own information and extension-type activities with complete disregard for the long-accepted fact that the Cooperative Extension Service is USDA's educational arm. Certain policy makers within USDA condone and even assist in furthering such acts and show little concern for the confusion and duplication of effort that results.

As an example, the Department of Health, Education and Welfare (HEW) has funded community education efforts. This HEW action leads to confusion at the state level because state departments of education are charged with the implementation of these community education efforts. In so doing they duplicate efforts already in progress by various extension services.

Another example that affects state operations is the new Energy Extension Service. The federal government supplies funds to the individual states with the provision that the governor establishes a state service. Fortunately, most state governors have called on the Cooperative Extension Service for advice and assistance, but in practice it still adds to confusion and duplication of effort.

Still another issue that requires more attention is the development of programs to reach a larger segment of Cooperative Extension Service's nontraditional audiences. These are the elderly, single-parent families, inner-city youth, working mothers, small farmers, minority groups, handicapped and the economically disadvantaged. Efforts over the past decade have improved this situation, but the door has been barely opened. Compounding the issue are problems of communications and teaching methods. If these people are not aware of extension service and its educational messages, they cannot request assistance. Coupled with this is the fact that extension service's traditional teaching methods such as large meetings, newsletters and newspaper do not fill the bill. These hard-to-reach audiences need a more personalized approach, not necessarily one on one, but meetings with smaller groups and in their own neighborhoods so transportation, for example, is not a problem.

In a larger sense, the Cooperative Extension Service must be innovative in communications methods and technology because the energy crisis will

dictate the development of more efficient delivery systems or the modification of existing ones. More rapid and economical methods of communicating information must be devised. The transmission of highly individualized farm management, marketing and crop protection information are cases in point. Computerization is helping in these examples, but the surface just has been scratched.

The last issue to be considered is a balance of power between federal, state and county governments. A number of federal programs, such as EFNEP, rural development and farm safety programs, were mandated in recent years and, consequently, were given accompanying funds. The Energy Extension Service effort at the state level is a case in point. Actions such as this have challenged the traditional, agreed upon and understood balance that existed for 50 years.

Strengths

Another question on the "Insight into the Cooperative Extension Service" survey dealt with the strengths of the Cooperative Extension Service that can be used as building blocks for the future. Each respondent was asked to list five. The strengths receiving the most number of responses were

- integral link with and support from the large knowledge base of the land-grant university system, especially its research arm;
- planning role of local advisory committees that reflect basic needs of local people as well as adding a degree of flexibility and commitment to educational programs;
- grassroots support at the local level that reflects the need for and value of volunteer leaders;
- competent, dedicated, enthusiastic, knowledgeable and well-trained staff;
- nationwide organization network with a strong county base;
- reputation as an effective, objective educational institution with long-time credibility;
- ability to tackle emergency and controversial issues and situations;
- use of local advisory groups that continue to insist on accountability;
- three-level (i.e., county, state, federal) method of funding.

Weaknesses

The insights survey carried a companion question: "Will you please identify five weaknesses we should strive to correct in the decade ahead?" There was less agreement on these factors and some responses duplicated what was earlier listed as issues. This point adds more validity to the survey because the translation of certain weaknesses into issues with which to deal is a positive step.

The major weaknesses identified were

- lack of concern for priority setting (i.e. the extension service tends to tackle too many things, thus spreading resources too thin);
- poor leadership and support for the Cooperative Extension Service within the USDA;

- inability to develop a system of evaluation to determine effectiveness and efficiency (i.e. return on public investment);
- inadequate funding at federal level to support program improvement and retain competent, experienced staff;
- complacency (i.e. inattention to public relations with legislative bodies at county, state and federal levels);
- extension service's close identity with successful groups thus shows failure to devote enough resources to the economically and socially disadvantaged;
- limited and slow acceptance of innovative technology that would speed up dissemination of information;
- image of staff as professional educators suffers as a result of high turnover and retention of incompetent staff;
- need to expand local volunteer leader corps, especially in agriculture and home economics;
- time required to respond to problems by adjusting resources is too lengthy.

Fortunately, most of these listed weaknesses can be tackled at the state level, even the two directed at federal operations. State extension directors and other land-grant university administrators can apply considerable political pressure if resourceful leadership and concerted efforts are combined. Some of the weaknesses are directly affected by resources, and some of those resources will probably not be available in the future.

Unfortunately, overcoming any of these weaknesses will require a long-term effort. Some can best be handled by cooperation between state and federal staff, for example, a more responsive evaluation system. More cooperation and coordination between states, along regional lines perhaps, might help overcome some weaknesses, such as testing and use of innovative technology, an evaluation system or new program materials that can be used in several states.

Efforts to combat some of these weaknesses have happened and are happening now. Evidently, these efforts have not been entirely successful because the problems were still noted by the respondents.

These weaknesses, however, can be considered as minor impediments and should be treated as challenges. After all, the first step in the solution of any problem is its identification. This recognition of weaknesses is a positive step forward, and the recognition of strengths can be used as building blocks for the future.

Extension in the 1980s*

The report "Extension in the '80s," prepared by a joint committee of the USDA and National Association of State Universities and Land-Grant Colleges (NASULGC), provides a guide for the future. The mission of the Cooperative Extension Service, the report says, is to provide information and

*See Appendix J for the executive summary of "Extension in the '80s, A Perspective for the future of the Cooperative Extension Service," a report of a Joint Committee of the USDA and the National Association of State Universities and Land-Grant Colleges.

to encourage people to change. Extension service seeks to achieve these goals primarily by disseminating information about and encouraging the application of research-generated knowledge and leadership techniques within families and communities.

With currently limited public resources, the Cooperative Extension Service must establish priorities within its major program areas. These program areas are listed in the report as

- the agricultural system;
- natural and environmental resources;
- community and small business development;
- home economics/family living;
- 4-H and youth education and development;
- international concerns.

The report also makes several recommendations concerning extension service. These involve the

- role of extension service in the land-grant university;
- methods and media in extension programs;
- strengthening the extension partnerships;
- program evaluation and accountability.

Administration and faculty of land-grant universities must place lifelong learning on a plane equal to that of research and preparatory education. A time-tested system exists for extending knowledge about agriculture, home economics and natural resources to local communities throughout the nation. Ways must be found to involve other disciplines in support of this system of established programs.

It is not possible for the Cooperative Extension Service to provide education for all persons. A sharp delineation of the target audience is needed if extension service is to retain the staff time necessary to most effectively educate. Electronic media and new information technology and processing systems appear increasingly attractive as means by which the Cooperative Extension Service can get information to its audiences.

Methods need to be devised to contact certain hard-to-reach audiences such as the urban poor and those in remote rural areas. Extension service can work through those outside the extension service system to wholesale information to new audiences. Extension service cannot abandon its time-tested, effective methods, but it must use new technology to provide educational opportunities to expanded audiences.

The strengthening of extension partnerships is important. The partners include

- federal legal partner;
- state legal partner;
- county or local legal partner;
- private sector partner;
- research partner;
- interagency partner.

Cooperation and reliability among these various entities is necessary because each partner in a relation has a contribution to make. Thus, extension

service benefits its partners just as the partners benefit from extension service. In order for the public to benefit the most, however, this series of interrelationships needs strengthening for improved service.

Extension service is adopting a new system of accountability and evaluation that will improve the reporting of its significant impact on the the public. This reporting will demonstrate accountability for the resources extension service has been given. The use of new technology should improve the communication and understanding people have of the Cooperative Extension Service.

The Cooperative Extension Service does not have a single national program. Yet, local advisory committees and their professional extension counselors are aware of the nationwide contributions they can make to progress agriculture and to revitalize rural communities and small towns through enriching and fulfilling the lives of their own citizens.

The application of research data by extension service has increased the efficiency of farmers, raised the aspirations of family members and vastly improved the quality of life of rural, and most recently, urban people throughout the United States. The need for this two-pronged effort of research and extension service is as great as it ever has been. Progressive people continue to need prompt access to unbiased information about opportunities and resources if they are to remain effective homemakers, producers, parents, leaders and citizens.

Every government needs to continually assess and realign its national priorities. The USDA has recently outlined 10 national priorities. The Cooperative Extension Service, as its educational arm, will concentrate on these. State extension services will also consider them as they develop their own programs. These national priorities are

1. reduced unemployment and underemployment in rural America;
2. improved income and living conditions for small and lower income farm families;
3. improved housing in rural America;
4. improved environment, community facilities and services for rural America;
5. improved quality of life for the disadvantaged, elderly and minorities;
6. improved health care for rural citizens;
7. improved energy conservation and management for home, farms and agribusiness;
8. agricultural efficiency and safe use of chemicals;
9. improved family stability and nutrition;
10. increased access of people to government programs and increased efficiency in delivery of services.¹

Practically all of these priorities cross program lines and involve a combination of agriculture, 4-H, community resource development and home economics. That is as it should be. Extension service is at its best when it uses a multidisciplinary approach to working with all members of the family and with all segments of society.

Early extension pioneers worked without a blueprint. Instead, they responded to what was needed with little guidance. They "flew by the seat of

their pants," so to speak. With bad roads, poor communications, inadequately defined programs and limited teaching methodology, they had to prove themselves, and they did. The necessity to cope carried them through many frustrations and hardships. Their dedication to the extension job has rarely been equaled. Mutual trust and understanding were the traits that earned them the cooperation and friendship of farmers, homemakers and youth.

Educators have to be optimists and realists at the same time. As optimists, educators must believe that the information they pass on will be accepted and put into practice. As realists, they must accept the fact that it might take several contacts over a period of weeks or months before the recommended practice is given a trial and several years before any real impact on the family or its quality of life can be recognized.

Extension pioneers succeeded in developing and selling the idea of extension service. At the same time they built an extension service philosophy bit by bit. Today's professionals no longer have to sell the idea of extension service, but they must extend its boundaries and realign its philosophy as traditions shift.

In a loose chronological sense, the pioneering stage in extension service occurred between 1880 and 1930. This stage gave way to an era of professionalism that carried the United States through the Depression of the 1930s, the war years of the 1940s and the tremendous growth decades of the 1950s and 1960s. Some veteran extension professionals call the latter half of the professional period the "golden age of extension." President Lyndon Johnson's dream of and legislation for a "Great Society" based on the ideal of extending broader social programs to the whole population had a definite impact on the USDA and its extension service.

Extension service in the late 1970s entered the credibility stage during which it lost considerable influence. Observers point to the 1977 reorganization of USDA and the subsequent administrative downgrading of Extension Service, USDA. *Hard Tomatoes, Hard Times*² is a publication critical of the department's research and extension efforts. It must be accepted that this questioning had a negative impact on extension service's prestige within both Congress and the federal administration.

The present and future phase of extension service can be called the accountability stage. During this time the Cooperative Extension Service will continue its role as a disseminator of useful and practical information to homes, farms, businesses and communities across the United States. It will expand its process of leadership development as it reaches additional millions of people through the technology of the mass media.

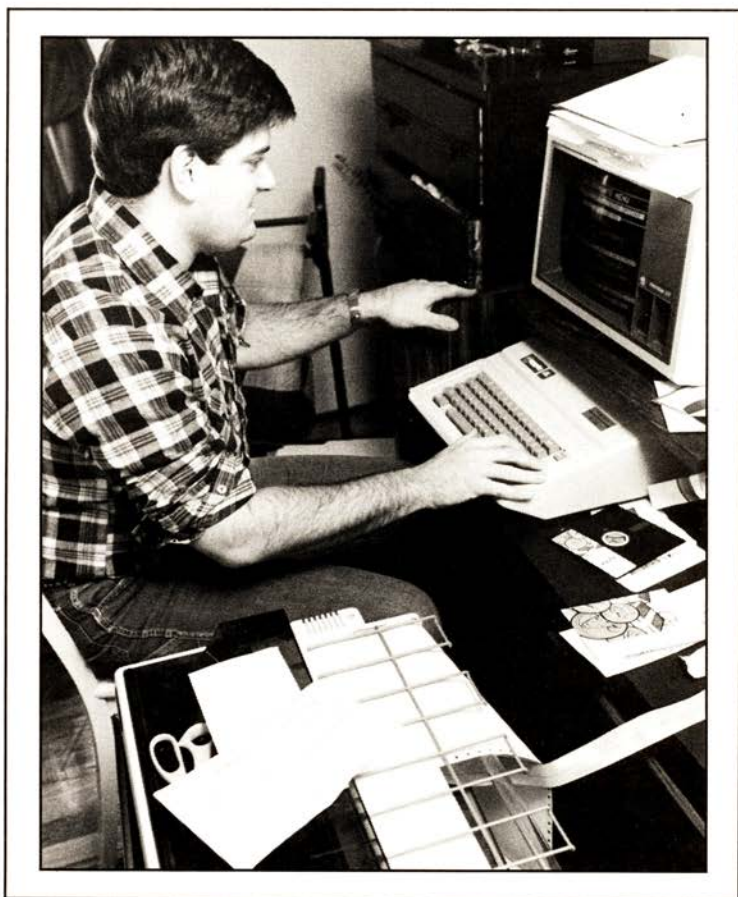
The Cooperative Extension Service will be around in its present form for decades to come because local citizens will insist on it. As extension service ages, it will become more expert and proficient in delivering its messages.

Notes

¹VandeBerg, Gale, ed. *The Cooperative Extension Service in Transition*. Extension Committee on Organization and Policy, University of Wisconsin, Madison, Wis., August 1979.

²Hightower, Jim. *Hard Tomatoes, Hard Times*. Cambridge, Mass.: Schenkman Publishing Co., 1978.

16



Epilogue

Only by looking forward, not back, can a review of more than a century of progressive service and education be wrapped up. In looking ahead to the future, the Cooperative Extension Service must be seen intact with its two coordinate functions—teaching and research. Without them, the Cooperative Extension Service would soon slump into a static, stagnant state.

Extension service's dynamic, localized approach to the solution of the common person's problems has stood the test of time. Therefore, developing new mechanisms or establishing a new system is not necessary. What is necessary is a revitalization of the existing system through new innovations that focus on accountability and efficiency. This can be achieved by an improved program-development process, better use of mass media technology and computerized techniques, intensive public affairs education, more volunteer leaders, continued emphasis on youth programs and increased evaluation efforts. By stressing these activities, the Cooperative Extension Service will facilitate its 17,000 professionals in their far-flung efforts to focus on national priorities, despite limited and decreasing resources.

What has been the result of the extension service experience in the United States? Extension service has been criticized for being elitist and for working mainly with large and successful clientele. Yet, this criticism comes about because extension service has been successful and has continued to work with those who have been helped by its programs. The elitist consequences grew out of democratic procedures. The Cooperative Extension Service is proud of its success.

What has been learned from the Cooperative Extension Service's success and its 70 years of existence?

1. A carefully developed extension program is essential to success.
2. Extension programs should serve the needs of the people.
3. Determination of people's needs should be based on adequate and current facts.
4. Involvement of progressive leaders who represent the major social,

economic and geographical elements in the area is fundamental to the development of a sound program.

5. People's needs change over time, so it is important to continually focus on changing areas of need.
6. Local people should be involved in extension programs and plans.
7. Priorities should be established to deal effectively with the most significant needs.
8. Programs developed should extend beyond annual plans of work to make progress toward long-range objectives.
9. Interpretation of extension service to leaders and the general public is an essential step in programming.
10. Extension personnel should feel they have something worth promoting because they do.

Appendix A

Smith-Lever Act*

Cooperative Extension work between the land-grant colleges and the USDA is authorized by the Smith-Lever Act. The provisions of the act, in effect as of Oct. 5, 1962, are shown below.

SECTION 1. In order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be continued or inaugurated in connection with the college or colleges in each State, Territory, or possession, now receiving, or which may hereafter receive, the benefits of the Act of Congress approved July second, eighteen hundred and sixty-two, entitled "An Act donating public lands to several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," and of the Act of Congress approved August thirtieth, eighteen hundred and ninety, agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture: Provided, That in any State, Territory, or possession in which two or more such colleges have been or hereafter may be established, the appropriations hereinafter made to such State, Territory, or possession shall be administered by such college or colleges as the legislature of such State, Territory, or possession may direct.

SECTION 2. Cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics and subjects relating thereto to persons not attending or resident in said colleges in several communities, and imparting information on said subjects through demonstrations, publications, and otherwise for the necessary printing and distribution of information in connection with the foregoing; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges or Territory or possession receiving the benefits of this Act.

SECTION 3. (a) There are hereby authorized to be appropriated for the purposes of this Act such sums as Congress may from time to time determine to be necessary.

(b) Out of such sums, each State and the Federal Extension shall be entitled to receive annually a sum of money equal to the sums available from Federal cooperative extension funds for the fiscal year 1962 and subject to the same requirements as to furnishing of equivalent sums by the State except that amounts heretofore made available to the Secretary for allotment on the basis of special needs shall continue available for use on the same basis.

(c) Any sums made available by the Congress for further development of cooperative extension work in addition to those referred to in subsection (b) hereof shall be distributed as follows:

1. Four per centum of the sum so appropriated for each fiscal year shall be allotted to the Federal Extension Service for administrative, technical, and other services, and for coordinating

*As amended in 1962.

the extension work of the Department and the several States, Territories, and possessions.

2. Of the remainder so appropriated for each fiscal year, twenty per centum shall be paid to the several States in equal proportions, forty per centum shall be paid to the several States in the proportion that the rural population of each bears to the total rural population of the several States as determined by the census, and the balance shall be paid to the several States in the proportion that the farm population of each bears to the total farm population of the several States as determined by the census: Provided, That payments out of the additional appropriations for further development of extension work authorized herein may be made subject to the making available of such sums of public funds by the States from non-Federal funds for the maintenance of cooperative agricultural extension work provided for in this Act, as may be provided by the Congress at the time such additional appropriations are made: Provided further, That any appropriation made hereunder shall be allotted in the first and succeeding years on the basis of the decennial census current at the time such appropriation is first made, and as to any increase, on the basis of decennial census current at the time such increase is first appropriated.

(d) The Federal Extension Service shall receive such additional amounts as Congress shall determine for administration, technical and other services and for coordinating the extension work of the Department and the several States, Territories, and possessions.

SECTION 4. On or about the first day of July in each year after the passage of this Act, the Secretary of Agriculture shall ascertain as to each State whether it is entitled to receive its share of the annual appropriation for cooperative agricultural extension work under this Act and the amount which it is entitled to receive. Before the funds herein provided shall become available to any college for any fiscal year, plans for the work to be carried on under this Act shall be submitted by the proper officials of each college and approved by the Secretary of Agriculture. Such sums shall be paid in equal quarterly payments in or about July, October, January, and April of each year to the treasurer or other officer of the State duly authorized by the laws of the State to receive the same, and such officer shall be required to report to the Secretary of Agriculture on or about the first day of January of each year, a detailed statement of the amount so received during the previous fiscal year and its disbursement, on forms prescribed by the Secretary of Agriculture.

SECTION 5. If any portion of the moneys received by the designated officer of any State for the support and maintenance of cooperative agricultural extension work, as provided in this Act, shall by any action or contingency be diminished or lost or be misapplied, it shall be replaced by said State and until so replaced no subsequent appropriation shall be apportioned or paid to said State. No portion of said moneys shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings, or the purchase or rental of land, or in college-course teaching, lectures in college, or any other purpose not specified in this Act. It shall be the duty of said colleges, annually, on or about the first day of January, to make the Governor of the State in which it is located a full and detailed report of its operations in extension work as defined in this Act, including a detailed statement of receipts and expenditures from all sources for this purpose, a copy of which report shall be sent to the Secretary of Agriculture.

SECTION 6. If the Secretary of Agriculture finds that a State is not entitled to receive its share of the annual appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the expiration of the Congress next succeeding a session of the legislature of the State from which funds have been withheld in order that the State may, if it should so desire, appeal to Congress from the determination of the Secretary of Agriculture. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury.

SECTION 7. Repealed. (Dealt with an annual report to Congress.)

SECTION 8. (a) The Congress finds that there exists special circumstances in certain agricultural areas which cause such areas to be at a disadvantage insofar as agricultural development is concerned, which circumstances include the following: (1) There is concentration of farm families on farms either too small or too unproductive or both; (2) such farm operators because of limited productivity are unable to make adjustments and investments required to establish profitable operations; (3) the productive capacity of the existing farm unit does not permit profitable employment of available labor; (4) because of limited resources, many of the

farm families are not able to make full use of current extension programs designed for families operating economic units nor are extension facilities adequate to provide the assistance needed to produce desirable results.

(b) In order to further the purposes of section 2 in such areas and to encourage complementary development essential to the welfare of such areas, there are hereby authorized to be appropriated such sums as the Congress from time to time shall determine to be necessary for payments to the States on the basis of special needs in such areas as determined by the Secretary of Agriculture.

(c) In determining that the area has such special need, the Secretary shall find that it has substantial number of disadvantaged farms or farm families for one or more of the reasons heretofore enumerated. The Secretary shall make provisions for the assistance to be extended to include one or more of the following: (1) Intensive on-the-farm educational assistance to the farm family in appraising and resolving its problems; (2) assistance and counseling to local groups in appraising resources for capability of improvements in agriculture or introduction of industry designed to supplement farm income; (3) cooperation with other agencies and groups in furnishing all possible information as the existing employment opportunities, particularly to farm families having underemployed workers; and (4) in cases where the farm family, after analysis of its opportunities and existing resources, finds it advisable to seek a new farming venture, the providing of information, advice, and counsel in connection with making such change.

(d) No more than 10 per centum of the sums available under this section shall be allotted to any one State. The Secretary shall use project proposals and plans of work submitted by the State Extension directors as a basis for determining the allocation of funds appropriated pursuant to this section.

(e) Sums appropriated pursuant to this section shall be in addition to, and not in substitution for, appropriations otherwise available under this Act. The amounts authorized to be appropriated pursuant to this section shall not exceed a sum in any year equal to 10 per centum of sums otherwise appropriated pursuant to this Act.

SECTION 9. The Secretary of Agriculture is authorized to make such rules and regulations as may be necessary for carrying out the provisions of this Act.

SECTION 10. The term "State" means the States of the Union and Puerto Rico.

Appendix B

Chronological History of Legislation by the United States Congress Relating to the Cooperative Extension Service in the Land-Grant Universities

| Year | Title | Purpose |
|-------------|----------------------|--|
| 1862 | Morrill Act (first) | Donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts. |
| 1887 | Hatch Act | To establish agricultural experiment stations in connection with the colleges in the several states operating under the provisions of the 1862 Morrill Act with the provision that each state provide funds matching those of the Federal government. |
| 1890 | Morrill Act (second) | To apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the first Morrill Act and the establishment of such colleges for the colored race in those states prohibiting their attendance at white institutions. |
| 1914 | Smith-Lever Act | To provide for cooperative agriculture extension work between the agricultural colleges in the several states receiving the benefits of the 1862 and 1890 land-grant acts. |
| 1924 | Clarke-McNary Act | Section 5 of the Act provided funds (on a matching basis by the individual states) for cooperative farm-forestry work. |
| 1928 | Hawaii Act | An act extending the benefits of the Hatch Act and Smith-Lever Act to Hawaii. |
| 1928 | Capper-Ketcham Act | To provide for the further development of agricultural extension work at the 1862 land-grant colleges and that future funds be allocated "in addition to and not a substitute for" those made available in the Smith-Lever Act of 1914. |
| 1929 | Alaska Act of 1929 | To extend the benefits of the Hatch Act and the Smith-Lever Act to the Territory of Alaska. |
| 1931 | Puerto Rico Act | To coordinate the agricultural-experiment station work and to extend the benefits of the Hatch and Smith-Lever Act to the Territory of Puerto Rico. |

| | | |
|------|---|--|
| 1935 | Bankhead-Jones Act | An act extending the scope of research conducted under the Hatch Act and to provide for the future development of Cooperative Agricultural Extension work and to provide for the further endowment and support of 1862 and 1890 land-grant colleges. |
| 1936 | Alaska Act of 1936 | An act extending benefits of the Capper-Ketcham Act to the Territory of Alaska. |
| 1937 | Puerto Rico Bankhead-Jones Act | An act extending the benefits of extension (Sec. 21) of the Bankhead-Jones Act to Puerto Rico. |
| 1939 | | An act to provide additional funding and further development of agricultural extension work being conducted under the Smith-Lever Act of 1914. |
| 1945 | Bankhead-Flannagan Act | To provide additional funding and further development of cooperative agricultural extension work under the Smith-Lever Act of 1914 and Bankhead-Jones Act of 1935. |
| 1946 | Agricultural Marketing Act | Authorized extension programs in marketing, transportation and distribution of agricultural products outside Smith-Lever formula, but states required to match Federal funds. |
| 1949 | Clarke-McNary Amendment | Authorized USDA to cooperate with land-grant colleges in aiding farmers through advice, education, demonstration, etc., in establishing, renewing, protecting and managing wood lots, etc., and in harvesting, utilizing and marketing the products thereof. |
| 1953 | Smith-Lever Act Amendment | An act that simplified and consolidated ten separate laws relating to Extension. Established new funding procedures based on rural/urban population formula and amounts. Repealed the Capper-Ketcham Act and the two Bankhead-Jones Acts of 1935 and 1945. |
| 1955 | Smith-Lever Amendment | Authorized work with disadvantaged farms and farm families and authorized funds for extension outside the traditional funding "formula." |
| 1966 | National Sea Grant College and Program Act | Established a program (under the U.S. Department of Commerce) to provide for applied research, formal education and advisory (extension) services for development of marine and Great Lakes resources. In about two-thirds (of the 30 coastal and Great Lakes states involved) have integrated this effort with that of Cooperative Extension. |
| 1968 | District of Columbia Public Education Act | Designated Federal City College as the land-grant institution for extension in the District of Columbia and authorized funds for the work. |
| 1972 | Rural Development Act of 1972 - Title V | Authorized rural development and small-farm extension programs, required that administration of program be associated with program under Smith-Lever Act (Memorandum of Understanding required) and established State Rural Development Advisory Council. |
| 1972 | Smith-Lever Amendment | Virgin Islands and Guam designated as States under Section 10. |
| 1977 | Food and Agriculture Act | A very comprehensive act that affected Cooperative Extension in the following ways: |

(Section 1407)

established a joint council on Food and Agricultural Sciences to foster coordination of the research, extension and teaching activities in the Federal Government, the states, and among private and public colleges and universities.

(Section 1408)

established a National Agricultural Research and Extension Users Advisory Board.

(Section 1464)

authorized fixed amounts for Extension activities through FY 1978 (\$260,000,000) to FY 1982 (\$350,000,000).

(Section 1425-1428)

established a National Food and Human Nutrition Research and Education Program.

(Section 1444)

authorizes agricultural and forestry extension funds for the 1890 institutions and Tuskegee Institute. Specifies that 4% of funds under Smith-Lever Act must go for extension work at these institutions and instructs extension heads at 1862 and 1890 institutions to develop a state-wide comprehensive plan.

(Section 1440-1443)

amends Rural Development Act of 1972 to provide additional assistance to small farmers (any farmer with gross sales of less than \$20,000) and provides for use of paraprofessionals in this effort.

(Section 1459)

requires Secretary to submit an evaluation of the Extension Service and the several Cooperative Extension Services by March, 1979.

(Section 1458)

directs the Secretary to assist Agency for International Development with agricultural research and extension programs in developing countries.

Appendix C

Memorandum of Understanding Between the University of Missouri and the United States Department of Agriculture on Cooperative Extension Work in Agriculture and Home Economics

Whereas The University of Missouri has under its control Federal and State funds for extension work in agriculture and home economics which are and may be supplemented by funds contributed for similar purposes by counties and other organizations and individuals within said State, and the United States Department of Agriculture has funds appropriated directly to it by Congress which can be spent for extension work in the State of Missouri;

Therefore, with a view to securing economy and efficiency in the conduct of extension work in the State of Missouri the President of the University of Missouri acting subject to the approval of the Board of Curators of the said University of Missouri and the Secretary of Agriculture of the United States, hereby execute the following memorandum of understanding with reference to cooperative relations between said University of Missouri and the United States Department of Agriculture for the organization and conduct of extension work in agriculture and home economics in the State of Missouri.

I. The University of Missouri agrees:

- (a) To organize and maintain at said institution a definite and distinct administrative division for the management and conduct of all cooperative extension work in agriculture and home economics, with a director selected by the institution and satisfactory to the Department;
- (b) To administer through such division thus organized, known as the Agricultural Extension Service, any and all funds it has or may hereafter receive for such work from appropriations made by Congress or the State Legislature, by allotment from its Board of Curators or from any other sources;
- (c) To accept the responsibility for conducting all educational work in the fields of agriculture and home economics and subjects related thereto as authorized by the Smith-Lever Act as amended and other Acts supporting cooperative extension work, and such phases of other programs of the Department as are primarily educational, which the Department has been authorized to carry on within the State.

II. The United States Department of Agriculture agrees:

- (a) To maintain in the Department a Federal Extension Service which, under the direction of the Secretary, (1) shall be charged with the administration of the Smith-Lever Act as amended and other Acts supporting cooperative extension work insofar as such administration is vested in the Department; (2) shall have primary responsibility for and leadership in all educational programs under the jurisdiction of the Department

- (except the graduate school); (3) shall be responsible for coordination of all educational phases of other programs of the Department, except the graduate school; and (4) shall act as the liaison between the Department and officials of the Land-Grant Colleges and Universities on all matters relating to cooperative extension work in agriculture and home economics and educational activities relating thereto.
- (b) To conduct through University of Missouri all extension work in agriculture and home economics and subjects relating thereto authorized by Congress to be carried on within the State except those activities which by mutual agreement it is determined can most appropriately and effectively be carried out directly by the Department.
- III. The University of Missouri and the United States Department of Agriculture mutually agree:
- (a) That, subject to the approval of the President of the University of Missouri and the Secretary of Agriculture, or their duly appointed representatives, all cooperative extension work in agriculture and home economics in the State of Missouri involving the use of Federal funds shall be planned under the joint supervision of the director of Agricultural Extension Service of University of Missouri and the administrator of the Federal Extension Service; and that approved plans for such cooperative extension work in the State of Missouri shall be carried out through the Agricultural Extension Service of the University of Missouri in accordance with the terms of individual project agreements.
- (b) That all State and county personnel appointed by the Department as cooperative agents for extension work in agriculture and home economics in the State of Missouri shall be joint representatives of the University of Missouri and the United States Department of Agriculture, unless otherwise expressly provided in the project agreement. Such personnel shall be deemed governed by the requirements of Federal Civil Service Rule No. IV relating to political activity.
- (c) That the cooperation between the University of Missouri and the United States Department of Agriculture shall be plainly set forth in all publications or other printed matter issued and used in connection with said cooperative extension work by either the University of Missouri or the United States Department of Agriculture.
- (d) That annual plans of work for the use of Smith-Lever and other Federal funds in support of cooperative extension work shall be made by the Agricultural Extension Service of the State of Missouri and shall be subject to the approval of the Secretary of Agriculture in accordance with the terms of the Smith-Lever Act as amended or other applicable laws, and when so approved shall be carried out by the Agricultural Extension Service of the said State of Missouri.
- IV. The University of Missouri and the United States Department of Agriculture further mutually agree:
- (a) That the Department of Agriculture shall make final determination on any proposed supplementary memoranda of understanding or similar documents, including those with other agencies, affecting the conduct of cooperative extension work only after consultation with appropriate designated representatives of the Land-Grant Colleges and Universities.
- (b) That the University of Missouri will make arrangements affecting the conduct of cooperative extension work with agencies of the Department, or with other Federal agencies, only through the administrator of the Federal Extension Service, or in accordance with an existing general agreement which has been approved by him.
- (c) That all memoranda and similar documents hereafter executed affecting cooperative extension work, whether between agencies of the Department or between State (Agricultural Extension Services) and agencies of the Department, shall be within the framework of, and consistent with the intent and purpose of, this memorandum of understanding.
- (d) That all memoranda and agreements affecting policies in cooperative extension work shall be reviewed periodically by appropriately designated representatives of the Land-

Grant Colleges and Universities and the Secretary of Agriculture for the purpose of determining whether modification is necessary or desirable to meet more effectively current developments and program needs.

- V. This memorandum shall take effect when it is approved by the Board of Curators of the University of Missouri and the Secretary of Agriculture of the United States, and shall remain in force until it is expressly abrogated in writing by either one of the signers or his successor in office. The agreement executed July 1, 1914 shall be deemed abrogated upon the effective date hereof.
- VI. Approved by the Board of Curators of the University of Missouri and the Secretary of Agriculture of the United States on July 13, 1955.

Appendix D

County Extension Council Law

Article 6. County Extension Councils, Boards, and Agents
Sections 2-608 through 2-620, Kansas Statutes Annotated as amended.

2-608. Compensation of county extension agents; contribution from federal and state funds. Whenever there shall be organized in any county of the state of Kansas a county extension council as specified in K.S.A. 2-611, as amended, and having for its purpose the giving of instruction in agriculture, marketing, home economics, 4-H club and youth work, community and resource development, to the people of said county through practical demonstrations, meetings, publications, and otherwise, and the employment of an extension agent or agents to prosecute such instructions the Kansas State University of Agriculture and Applied Science shall contribute from federal and state funds granted for cooperative extension work not less than one thousand five hundred dollars (\$1,500), as far as such funds are available towards the salary of each county extension agent employed.

2-609. Same; conditions. Before such allocations of funds are made by the director of extension of Kansas State University of Agriculture and Applied Science, the county extension council shall present to the director of extension and to the board of county commissioners of its county: A list of members of the extension council and its executive board and the officers, with the statement signed by the chairman of the board certifying that these members and officers have been duly elected as specified in K.S.A. 2-611, as amended.

2-610. County appropriations; budgets, approval; tax levies. On or before the thirteenth day of June each year, the executive board of the county extension council shall file with the county commissioners in the office of the county clerk:

(a) A list of current members of the county extension council and its executive board; (b) a certification of election of officers as provided in subsection (c) K.S.A. 1974 Supp. 2-611; (c) a certificate by the director of extension of Kansas State University that the county extension council is properly functioning and entitled to receive the appropriations provided by law; and (d) a budget prepared in cooperation with the board of county commissioners and the director of extension of Kansas State University for the ensuing calendar year. The budget shall clearly show all receipts from all sources. After the approval of said budget by the three (3) members of the board of county commissioners, the director of extension of Kansas State University or his duly authorized representative, and the chairman of the executive board of the county extension council, acting as a body, the board of county commissioners shall then make an appropriation and certify to the county clerk the amount of tax necessary to be levied on all tangible taxable property of the county sufficient to provide a program of county extension work, which levy shall not exceed the limitation prescribed by K.S.A. 1974 Supp. 79-1947, and amendments thereto.

2-611. County extension councils; election of members; meetings; development of programs; election, term of office, oath, powers and duties of executive board; bond of treasurer. (a) The citizens of voting age residing in each of the three (3) county commissioner

districts in each county in this state are qualified to participate in the meeting which shall be held in each such district in each year not earlier than September first and at least ten days before the annual meeting of the county extension council upon a date and at a time and place determined and fixed by the executive board of the extension council and shall elect from among their number three (3) members of the county extension council, one (1) of whom shall be elected to represent agriculture who shall be actively engaged in agricultural pursuits, one (1) to represent home economics work and one (1) to represent 4-H club and youth work: Provided, That the council members of each county may choose to hold a countywide election meeting in lieu of holding a meeting in each district. Prior to adjournment of such countywide meeting the citizens of each commissioner district shall separate into groups for the purpose of selecting the council members who shall represent such commissioner district on the county extension council. Such countywide meeting shall be subject to the same conditions hereinabove provided for district election meetings: Provided, That the council members of each county commissioner district may choose, as an alternate method of electing council members, to mail a ballot to each citizen of voting age residing in such county commissioner district at least three (3) weeks before the annual meeting of the county extension council. Such ballots shall contain the names and resident addresses of all persons who are candidates for council membership. Each incumbent council member of such district shall select not less than two (2) persons as candidates for each position to be filled. After the ballot has been marked, each voter shall mail or otherwise transmit such ballot to the county extension office of the district at least seven (7) days prior to the annual meeting of the county extension council; Provided, That in counties having a population of one hundred fifty thousand (150,000) or more the citizens may elect council members at large or by county commissioner district as determined by the executive board of the county extension council; however, a council elected at large in such counties shall also have a total elected membership of twenty-seven (27) with nine (9) members elected to represent agriculture who shall be actively engaged in agricultural pursuits, with nine (9) members elected to represent home economics, and nine (9) members elected to represent 4-H club and youth work. When council members are elected at large in such counties, nine (9) shall be elected annually, three (3) of whom shall represent agriculture, three (3) of whom shall represent home economics, and three (3) of whom shall represent 4-H club and youth work: Provided further, That council members elected at large in such counties shall serve under the same conditions as council members elected by commissioner districts, except the provision that three (3) members of the executive board shall be elected from each commissioner district shall not apply: Provided further, That in the year 1972, when council members are elected by commissioner districts, then nine (9) members shall be elected in each commissioner district, three (3) representing agriculture, three (3) representing home economics, and three (3) representing 4-H club and youth work. The number of council members to be elected for one (1) year, two (2) years and three (3) years, in all counties of the state in the year 1972 shall be determined and fixed by the director of extension of Kansas State University of Agriculture and Applied Science or his authorized representative. The twenty-seven (27) members so elected in the three (3) commissioner districts, or at large, shall constitute and be the county extension council, and it shall be the duty of said extension council to plan the educational extension programs of the county.

At the annual meeting of the council and such other times as may be designated by the executive board of the council, the council members elected to represent agricultural pursuits or home economics work, or 4-H club and youth work, may meet separately and elect a group chairman for the purpose of developing educational program plans on extension work in agricultural pursuits, in home economics work or in 4-H club and youth work. All such program plans shall be subject to final approval by the executive board of the county extension council. The county extension council shall meet annually not earlier than October first and not later than December twentieth, and shall elect from among its own members an executive board consisting of a chairman, a vice-chairman, a secretary and a treasurer and five (5) additional members. The date, time and place of such annual meeting shall be determined and fixed by the executive board. No more than three (3) members of such executive board shall be elected from any commissioner district and at least one member shall be elected from each council member group namely,

agricultural pursuits, home economics, and 4-H club and youth work. The executive board of the council is authorized to transact all business of the council, shall have control of all the property of the county extension council, and may employ and fix the compensation of such persons as are necessary for the conduct of the business of the council, except as herein otherwise expressly provided. Members of the county extension council and of the executive board shall receive no compensation for their services as members of such council or of such executive board. The members of the executive board within five (5) days after their election and prior to entering upon the duties of their respective offices shall take and sign the usual oath of public officers and the same shall be filed in the office of the county clerk. The treasurer of the executive board after his election as treasurer and before entering upon the duties of his office as treasurer shall execute to the council a corporate surety bond, of one hundred percent (100%) of the amount as nearly as can be ascertained that shall be in his hands as treasurer at any one time. All such bonds shall be conditioned to the faithful discharge of the duties of the office of treasurer. The amount and sufficiency of all bonds shall be determined by the county clerk, and upon his approval endorsed on the bond, shall be filed with the county clerk, who shall immediately notify the secretary of the executive board and the county treasurer of such approval and filing. The cost of any corporate surety bond so furnished shall be paid by the executive board. In the event of the breach of any condition thereof, the chairman of the executive board shall, and if he does not any member of the extension council may, cause a suit to be commenced thereon in his own name for the benefit of the council, in which suit it shall not be necessary to include the treasurer as a party to said suit and the money collected shall be applied to the use of the council, as the same should have been applied by the treasurer.

(b) Public notices of each annual election meeting for commissioner districts or at large, and the annual meeting of the extension council provided for in this section shall be published once at least one week but not more than three weeks prior to the date fixed for such election or annual council meeting in a newspaper having general circulation in the county. The executive board shall call each of the annual election meetings and the annual meeting of the extension council and shall cause said notices of said meetings to be published as herein required and said notices shall state the date, time and place of the meeting. The cost of publishing said notices shall be paid by the executive board of the county council.

(c) The elected officers and the members of the executive board shall hold office for one year and until their successors are elected and qualify. Each year not earlier than January second and not later than January fifteenth the retiring executive board shall meet with the newly-elected executive board at a time and place designated by the chairman of the retiring executive board except in the year 1973 the executive board of the county extension council shall serve as the retiring board. At such meeting the retiring executive board shall conclude all business of the past year and pay all lawful bills for the year in which it has served and provide the new executive board with all reports, records and other information which may be necessary to the operation of the county extension program during the ensuing year. Members of the county extension council shall hold office for a term of three (3) years and until their successors are elected and qualify, and no member of such council shall hold office for more than two consecutive terms. Vacancies in the membership of the executive board and vacancies among the officers of the executive board shall be filled for the unexpired term by election of the remaining members of the executive board.

2-612. Deposit of moneys; duties of treasurers. All moneys received by the treasurer for the council or executive board shall be deposited by him in a bank or trust company designated by the executive board and authorized to receive public deposits. The treasurer shall pay out, on the warrant of the secretary of the executive board, or by a combination warrant check, in either case, signed by the chairman of the executive board all moneys which shall come to his hands for the use of the council or executive board, and he shall not pay any sum from the funds of the council or executive board in any other manner. He shall keep a book in which he shall enter all the moneys received and disbursed by him, specifying the person or persons from whom received and to whom paid, and the object for which same has been paid out. He shall present to the executive board at each annual meeting of the board a report in writing containing a statement of all moneys

received by him from the county treasurer and from any other source since the last annual meeting of the executive board; and of the disbursements made by him with the items of such disbursements, and exhibit the warrants or checks or combination warrants and checks therefor, which report shall be recorded by the secretary of the executive board; and at the close of his term of office shall settle with the executive board; and shall hand over to his successor said book and all other records and papers coming into his hands as treasurer, together with all moneys remaining in his hands as such treasurer.

2-613. Duties of county treasurers. The county treasurer shall pay to the treasurer of the executive board of the council of his county all moneys in the county treasury belonging to said council, upon the order of the treasurer of the executive board of the council countersigned by the secretary of the executive board: Provided, that the county treasurer shall not pay to said treasurer of the executive board any such moneys unless and until he has been notified by the county clerk that said treasurer of the executive board has filed his bond and same has been approved by the county clerk.

2-614. Duties of executive board secretary; records open to public. The secretary of the executive board shall: (1) Record the proceedings of all meetings of the executive board in books provided for that purpose within twenty (20) days following the meeting; (2) prepare and submit to each annual meeting of the executive board a report on the work and activities of the county extension council since the last annual meeting of said board; and (3) perform such other duties as are usually performed by secretaries and as may be prescribed by the executive board. The records of the secretary shall be open to public inspection at all reasonable times.

2-615. County extension service agents; selection; qualifications; employment by two or more counties; accounts and expenditures; approval. County extension agents shall be selected and appointed by the executive board of the county extension council and shall be under the general supervision of said executive board and the director of extension. The director of extension of Kansas State University of Agriculture and Applied Science shall determine the qualifications of each county extension agent. The executive boards of two or more county extension councils may jointly employ a county extension agent or agents under like conditions as the executive board of a single county and by agreement fix the amount of compensation to be paid to such agent by each county extension council and the time such agent is to spend in each county. All accounts and all expenditures of funds of the county extension council from whatever source derived shall be subject to the approval of said executive board and the director of extension of Kansas State University of Agriculture and Applied Science.

2-616. Purpose and duties of extension council; limitations. The county extension council shall have for its sole purpose the giving of instruction and practical demonstrations in agriculture, marketing, home economics, 4-H club and youth work, community and resource development, to all persons in the county and the imparting to such persons of information on said subjects through practical demonstrations, meetings, publications, or otherwise. Such councils shall not engage in commercial or other private enterprises, legislative programs, or other activities not authorized by this act and shall not give preferred service to any individual, group or organization. County extension councils may collect fees for specific services which require special equipment or personnel, such as soil testing laboratory, seed testing service or other educational service, but they shall not collect membership dues nor shall they collect dues for or pay dues to any local, state or national organization or association: Provided, that the furnishing of supplies or services deemed necessary by the director of extension and the executive board of the county extension council to the conduct of any educational program authorized under this act shall not be considered private enterprise or commercial activity within the meaning of this act. Nothing in this act shall prevent the county extension council or extension agents employed by it from using or seeking opportunities to reach an audience of persons interested in extension work through the help of interested farm organizations, civic organizations or any other group: Provided, that in using or seeking such opportunities the county extension council or agents employed by it shall make available to all groups and organizations in the county equal opportunity to cooperate in the educational extension program. County extension agents, however, are prohibited from requiring uniform bylaws, rules, regulations and methods of

procedure in groups, clubs or organizations wishing to do extension work: Provided, that this prohibition shall not prevent county extension agents from suggesting bylaws, regulations and methods of procedure.

2-617, 2-618. (K.S.A. 2-617, 2-618; Repealed, 2 L. 1972.)

2-619. Invalidity of part. If any section, subsection, clause, sentence or phrase of this act is for any reason held to be unconstitutional and invalid, such decision shall not affect the validity of the remaining portion of this act.

2-620. Tax levies for office facilities for extension council in certain counties. In any county having a population of not less than sixty thousand (60,000) nor more than seventy-five thousand (75,000), the board of county commissioners may levy, for a period not to exceed two (2) years, a tax on all taxable tangible property in such county not in excess of one-quarter ($\frac{1}{4}$) mill on each dollar of assessed valuation of such property for the purpose of creating and providing a special fund to be used for the purchase of real estate, including any buildings or structures thereon, and to make improvements on such real estate for the purpose of providing office and meeting room facilities for an extension council operating under article 6 of chapter 2 of the Kansas Statutes Annotated and acts amendatory thereof: Provided, that no levy shall be made under the provisions of this act until a resolution authorizing the making of such a levy be passed by the board of county commissioners specifying the amount to be raised each year by such levy and published for three (3) successive issues in the official county newspaper within the county, whereupon such a levy may be made unless a petition in opposition to the same, signed by not less than ten percent (10%) of the qualified electors of such county, as determined by the vote for secretary of state in the last preceding election, is filed with the county clerk of such county within thirty (30) days following the last publication of said resolution.

In the event such petition is filed it shall be the duty of the board of county commissioners to submit the question to the voters at an election called for such purpose at the next general election: Provided, that such tax levy shall be in addition to all other tax levies authorized or limited by law, and shall not be subject to or within the aggregate tax levy limitations prescribed for such counties by K.S.A. 1971 Supp. 79-1947.

Chapter 79. Taxation

Article 19 - Limitations on Tax Levies

(Portions selected that are applicable to the
Cooperative Extension Service as amended, 1974)

79-1947. Limitation on Levies by Counties. Section 1. K.S.A. 1974 Supp. 79-1947 is hereby amended to read as follows: The authority of the board of county commissioners of each of the several counties 'o fix a rate of levy annually for the following county purposes, is hereby limited as follows:

Agriculture extension:

| | |
|---|------------|
| Authorized by K.S.A. 1973 Supp. 2-610 | |
| Counties having an assessed valuation of more than \$35,000,000 | 1.00 mill |
| Counties having an assessed valuation not more than \$35,000,000 | \$.35,000 |
| Certain counties between 20,000 and 30,000 population in which there are located five (5) or more cities of the second class | 1.50 mills |

Appendix E

EMIS Report from the Cooperative Extension Service, Pennsylvania State University, Six-Month Report for Fiscal Year 1982

| Percent of Staff Time on Extension Elements/Purposes | | | | | | | | | | | | | | |
|--|--------------|--------------|-----------|----------------------|----------------------|-------------------------|----------------------|----------------------------|-----------------------|---------------------------|-----------------------------|------------------------|--------------|--------------|
| Summary all Units PENNA | | | | | | | | | | | | | | |
| *Ext. Elements *Purposes | Farm 2-22 | Mkt 19-20 | Int 30 | Youth 38-53 54 | Nutri Youth 54 | Fam-L 59-61 63-67 | Nutri Adult 62 | Home Food Grdn 16 | Home Grds 69-70 | Com Dev 68 71-78 | Env NR 80-81 85-87 | Forest* 83-84* * | Tng 88-95 | Org 96-98 |
| A - Staff with Cooperative Appointments | | | | | | | | | | | | | | |
| Counties 1-71 Co Staff | 22.8 | 1.6 | .1 | 22.6 | 4.2 | 15.4 | 3.1 | 4.2 | 3.0 | 3.4 | 1.3 | .5* | 10.7 | 7.2 |
| Units 72-77 A Agents | 20.0 | 11.6 | .1 | 9.3 | .1 | 11.4 | .7 | .7 | 22.3 | 6.6 | 1.2* | 8.4 | 7.5 | |
| Units 78-98 Spec | 41.7 | 7.1 | .4 | 11.9 | .8 | 7.9 | 1.1 | .4 | 4.9 | 3.3 | 1.4* | 7.6 | 10.0 | |
| Unit 99 Adm | 2.7 | .2 | | 2.4 | .7 | 1.1 | 5.0 | | 5.2 | 3.9 | * | 3.2 | 75.6 | |
| All Units - Penna Totals | 26.7 | 3.6 | .2 | 18.2 | 2.9 | 12.7 | 2.5 | 2.8 | 2.3 | 5.1 | 2.2 | .8* | 9.5 | 10.6 |
| B - Staff without Cooperative Appointments | | | | | | | | | | | | | | |
| Counties 1-71 Co Staff | .3 | | | 8.6 | 9.5 | 2.0 | 77.4 | .1 | .2 | .4 | .2 | .1* | .9 | .4 |
| Units 72-77 A Agents | | | | | | | | | | | | * | | |
| Units 78-98 Spec | 22.4 | .4 | | 24.2 | 4.4 | 19.3 | .7 | 2.0 | | 14.9 | 6.1 | .2* | 1.3 | 4.1 |
| Unit 99 Adm | | | | | | | 53.2 | | | | | * | | 46.8 |
| All Units - Penna Totals | 2.0 | | | 9.7 | 9.1 | 3.2 | 71.4 | .2 | .2 | 1.4 | .7 | .1* | .9 | 1.1 |
| C - Total Staff | | | | | | | | | | | | | | |
| Counties 1-71 Co Staff | 14.1 | 1.0 | .1 | 17.2 | 6.3 | 10.2 | 31.8 | 2.6 | 1.9 | 2.2 | .9 | .3* | 6.9 | 4.6 |
| Units 72-77 A Agents | 20.0 | 11.6 | .1 | 9.3 | .1 | 11.4 | .7 | .7 | 22.3 | 6.6 | 1.2* | 8.4 | 7.5 | |
| Units 78-98 Spec | 39.5 | 6.3 | .4 | 13.3 | 1.2 | 9.2 | 1.1 | .5 | 1.3 | 6.1 | 3.6 | 1.3* | 6.9 | 9.3 |
| Unit 99 Adm | 2.5 | .2 | | 2.2 | .6 | 1.0 | 9.7 | | 4.7 | 3.5 | * | 2.9 | 72.8 | |
| All Units - Penna Totals | 19.2 | 2.5 | .1 | 15.6 | 4.8 | 9.8 | 23.5 | 2.0 | 1.7 | 3.9 | 1.8 | .6* | 6.8 | 7.7 |

Extension Programs by Purpose, Audience, and Extension Program Elements

All Units - PENNA Totals

| Purpose | Staff with Cooperative Appointment | | | | | Staff without Cooperative Appointment | | | | |
|-------------------------------|------------------------------------|-------------|----------|---------|----------|---------------------------------------|-------------|----------|--------|----------|
| | Days | Energy Days | Meetings | Attend | Ind Asst | Days | Energy Days | Meetings | Attend | Ind Asst |
| 2 Role of Agriculture | 778.5 | | 304 | 18,149 | 8,480 | 60.5 | | | | 994 |
| 3 Safety & Emergency-Farm | 355.5 | 1.5 | 115 | 4,390 | 4,347 | 35.5 | | | | 283 |
| 4 Prod Practices Animal | 4,532.0 | 25.5 | 1,312 | 52,176 | 32,581 | 82.5 | | 8 | 128 | 1,951 |
| 5 Prod Practices Crops | 3,663.0 | 147.0 | 695 | 44,025 | 38,313 | 195.0 | | | | 1,883 |
| 6 Animal Health | 1,135.0 | 1.0 | 156 | 6,154 | 24 | 11.5 | | 2 | 50 | |
| 7 Dise Wd Pest Control Crops | 1,397.0 | .5 | 251 | 12,835 | 18 | 32.5 | | | | |
| 8 Mgt Decision Mkg Farm | 2,324.5 | 10.5 | 615 | 24,709 | 16,861 | 41.0 | | | | 423 |
| 11 Pollution Control-Animal | 109.5 | 3.0 | 25 | 649 | | .5 | | 1 | 5 | |
| 12 Pollution Control-Crops | 28.0 | 1.0 | 10 | 117 | | | | | | |
| 16 Home Veg Fruit Gardens | 1,480.5 | 3.5 | 383 | 8,616 | 22,438 | 57.0 | | | | 4,165 |
| 19 Producer Marketing | 1,154.5 | | 373 | 19,212 | 8,194 | 7.5 | 2.0 | 3 | 17 | 157 |
| 20 Marketing Systems Firms | 756.5 | 4.0 | 110 | 5,476 | 4,631 | 2.5 | | | | 109 |
| 30 International | 96.5 | | 16 | 612 | 27 | 1.0 | | 2 | 48 | |
| 38 Communication Arts | 188.0 | | 45 | 1,616 | 1,918 | 68.0 | | 12 | 219 | 1,049 |
| 39 Marketing Agriculture | 66.5 | | 43 | 942 | 2,209 | 9.5 | | | | 1,071 |
| 40 Careers | 237.0 | | 262 | 10,666 | 2,118 | 65.0 | | 17 | 1,062 | 585 |
| 41 Clothing & Textiles | 301.5 | | 67 | 1,117 | 2,669 | 94.0 | | 32 | 964 | 887 |
| 42 Cultural Arts | 94.5 | | 37 | 1,057 | | 38.0 | | 53 | 723 | |
| 43 Health | 59.0 | | 27 | 382 | 608 | 14.0 | | 11 | 108 | 361 |
| 44 Home Environment | 16.5 | | 4 | 50 | | 49.5 | 6.0 | 16 | 126 | |
| 45 Management | 39.0 | | 13 | 108 | | 6.5 | | 4 | 24 | |
| 46 Leisure Education | 229.0 | | 109 | 5,217 | 14 | 53.0 | | 33 | 702 | |
| 47 Plant Science & Crops | 208.0 | | 96 | 1,719 | 1,840 | 64.0 | | 18 | 120 | 245 |
| 48 Safety | 108.5 | | 58 | 1,276 | 5 | 40.0 | | 9 | 137 | |
| 49 Foods 4-H | 134.5 | | 58 | 1,493 | 2,041 | 65.0 | | 14 | 559 | 823 |
| 50 Agri Production Projects | 1,469.0 | 1.5 | 891 | 33,047 | 11,275 | 197.5 | | 146 | 5,357 | 1,481 |
| 51 Environment | 153.5 | 11.5 | 36 | 922 | 800 | 4.5 | | 3 | 21 | 146 |
| 52 Culture Exchange-IFYE | 180.0 | | 56 | 1,182 | 34 | 138.0 | | 15 | 596 | |
| 53 Sci Skills-Other Projects | 276.0 | 13.5 | 140 | 4,270 | 2,504 | 42.0 | 1.0 | 44 | 637 | 685 |
| 54 Spec-Nutrition ENEP | 1,569.5 | 1.0 | 828 | 13,226 | 6,284 | 2,130.0 | | 1,921 | 29,988 | 23,181 |
| 55 Personal Development | 663.5 | | 321 | 8,790 | 2,623 | 200.5 | | 113 | 2,956 | 1,008 |
| 56 Community Development | 386.0 | 1.5 | 115 | 4,039 | 2,012 | 55.0 | | 7 | 76 | 358 |
| 57 Leadership | 1,820.5 | | 862 | 19,446 | 13,663 | 421.0 | | 203 | 3,795 | 3,939 |
| 58 4-H Overall | 3,131.5 | 2.5 | 703 | 25,983 | 16,865 | 648.0 | | 135 | 3,713 | 6,299 |
| 59 Safety & Emergency-Home | 128.5 | 3.5 | 25 | 742 | 1,054 | 54.5 | 14.5 | 1 | 45 | 57 |
| 60 Cultural & Leisure | 659.5 | 8.0 | 464 | 22,660 | 3,446 | 134.0 | | 108 | 1,341 | 198 |
| 61 Nutrition | 1,767.0 | 58.5 | 718 | 22,733 | 20,603 | 165.5 | | 108 | 3,203 | 5,072 |
| 62 Special Nutrition ENEP | 1,348.0 | 4.0 | 289 | 4,454 | 4,730 | 16,770.0 | | 4,821 | 28,413 | 74,627 |
| 63 Family Resource Management | 1,306.5 | 3.5 | 330 | 9,228 | 5,171 | 58.5 | | 56 | 674 | 455 |
| 64 Housing Home Environment | 912.0 | 93.5 | 378 | 10,013 | 5,241 | 103.5 | 53.5 | 29 | 317 | 504 |
| 65 Clothing & Textiles | 839.0 | 19.0 | 474 | 9,792 | 6,330 | 95.5 | | 145 | 2,163 | 855 |
| 66 Human Dev & Relationships | 961.5 | | 368 | 9,616 | 2,867 | 109.5 | | 1 | 36 | 850 |
| 67 Family Health Practices | 215.0 | | 102 | 2,281 | 1,610 | 42.0 | | 11 | 157 | 127 |
| 68 Community Services | 451.5 | 4.5 | 257 | 7,259 | 4,350 | 75.0 | 29.0 | 6 | 626 | 558 |
| 69 Home Grounds | 1,151.3 | 24.0 | 196 | 9,020 | 33,042 | 37.5 | | | | 5,089 |
| 70 Animal Avocations | 94.0 | | 43 | 892 | 231 | 2.5 | | | | 8 |
| 71 Health-Community | 77.0 | | 28 | 510 | 25 | 4.5 | | | | 5 |
| 72 Housing Community | 24.0 | | 17 | 237 | 7 | 8.5 | | 1 | 12 | |
| 73 Leadership | 583.5 | 4.0 | 287 | 9,726 | 2,113 | 62.0 | | 6 | 440 | 108 |
| 74 Comprehensive Planning | 459.0 | 1.5 | 140 | 3,117 | 1,602 | 58.5 | 1.0 | 1 | 6 | 148 |
| 75 Government | 653.5 | 11.5 | 266 | 8,575 | 1,542 | 98.0 | | | | 24 |
| 76 Saleable Crafts Industry | 77.5 | | 46 | 1,711 | 4,836 | | | | | 52 |
| 77 Economic Base | 148.0 | | 32 | 1,782 | 16 | 30.0 | | | | |
| 78 Recreation Facilities | 234.0 | 3.5 | 56 | 3,893 | 648 | | | | | |
| 80 Environment | 596.5 | 58.0 | 126 | 4,636 | 6,882 | 44.0 | 12.5 | 1 | 18 | 427 |
| 81 Soil Water Conservation | 153.0 | | 91 | 3,901 | 389 | 68.5 | | 2 | 31 | 76 |
| 83 Forest Production | 207.5 | 5.0 | 48 | 1,485 | 5,273 | 12.0 | | | | 572 |
| 84 Forest Marketing | 207.0 | 34.0 | 71 | 2,341 | 1,071 | 6.0 | | | | 5 |
| 85 Environment Issues | 287.5 | 20.5 | 95 | 4,011 | 18 | 2.0 | | | | |
| 87 Pollution Control | 168.0 | | 24 | 513 | | 40.5 | | | | |
| 88 In-Ser Tng Agri | 647.5 | 1.0 | | | | 11.5 | | | | |
| 89 In-Ser Tng Home Ec | 409.0 | | | | | 4.5 | | | | |
| 90 In-Ser Tng 4-H Youth | 650.0 | | | | | 81.5 | | | | |
| 91 In-Ser Tng Comm Res Dev | 164.5 | | | | | | | | | |
| 92 In-Ser Tng Ext Methods | 466.0 | | | | | 10.5 | | | | |
| 93 Orientation Training | 277.5 | | | | | 35.0 | | | | |
| 94 Prof Improvement Org | 1,575.5 | 1.0 | | | | 57.0 | | | | |
| 95 Other Training | 875.5 | 6.5 | | | | 6.5 | 2.0 | | | |
| 96 Program Development | 1,153.0 | 2.5 | 152 | 3,659 | 587 | 31.0 | | 1 | 84 | 3 |
| 97 Affirmative Action EEO | 159.0 | | 2 | 13 | | 1.0 | | | | |
| 98 Administration Supervision | 4,367.5 | 2.0 | 422 | 12,210 | 1,889 | 234.5 | | 5 | 127 | 57 |
| Summary Totals | 53,597.5 | 598.5 | 14,733 | 504,678 | 320,969 | 23,485.5 | 121.5 | 8,125 | 89,824 | 141,960 |

Appendix F

Arkansas Cooperative Extension Service Narrative Accomplishment Report

| | |
|---|--|
| BRIEF TITLE (include state name in title) | Luv An Egg Workshops for 4-H Club Members - Arkansas |
| PROGRAM DESCRIPTION Emphasis Goals Scale/Size/No. of counties Innovations Linkage Clientele Rural/Urban | TEXT: In 17 Arkansas counties egg buying, storage, and preparation were taught to 2,602 4-H Club members. Program content, presented to agents and leaders in two state workshops, emphasized selecting, storage, food value, and preparation of eggs and principles of preparation of foods in which eggs were used. In addition to subject matter, workshop goals included improved skills in demonstration techniques. |
| RESOURCES INVOLVED Cooperators Volunteers Special Funds | Both rural and urban 4-H club members were reached in workshops where members practiced skills under the supervision of 68 leaders, 17 senior 4-H club members, and 17 county Extension agents - home economics. As an outgrowth of the workshop, the general public gained knowledge from 31 newspaper articles, 28 radio programs, 5 television programs, and 43 exhibits, 10 of which were at county or district fairs. In three counties, members combined study with recreation at overnight camps. |
| ACCOMPLISHMENTS What were impacts? Who benefitted? What were the benefits? Level of impact? Calculated costs? Calculated benefits? How impacts were measured? | The workshops were funded in part by a grant from the American Egg Board. Extension Service provided teaching materials, leader and agent training, and time and travel of county Extension agents - home economics. Eighteen hundred 4-H Club members learned to buy eggs by label and recommended storage practices. Twelve hundred learned to make omelets, and 852 learned to scramble, fry, and hard cook eggs in water. Six hundred fifty-seven learned to use eggs in cookery as leavening, binding, or coating agents. Forty-seven percent of members who learned new skills in workshops reported further progress from home practice. Results were tabulated from leaders' reports submitted 3 to 5 months after workshops. |

FUTURE IMPLICATIONS

Expansion/deletion
 Clientele yet to be served
 Research needed

The workshops were effective as a method of strengthening the leadership skills of agents and leaders. 4-H club members increased their interest in membership and improved the demonstrations presented at county, district, and state 4-H O-Ramas. Factual egg information dispelled much misinformation about eggs in a good diet. The working relationship between Extension and the poultry industry was strengthened by the effort.

4-H Egg Workshops are to be offered in at least 20 counties next year, using 1981 and 1982 training materials.

| | |
|---|--|
| Name and title Organization Address City, State, Zip Code Telephone | CONTACT PERSON: Mrs. Mescal Johnston, Extension Food Marketing Specialist or Mr. Lloyd T. Westbrook, State Leader - 4-H University of Arkansas Cooperative Extension Service P. O. Box 391 Little Rock, AR 72203 501-373-2677 or 501-373-2509 |
|---|--|

KEYWORDS are words and phrases that others will use when searching the data base of accomplishment reports. The Keywords List can be used as a guide for selecting words. In addition, words not appearing on the Keyword List may also be used. Separate each distinct word or phrase with a comma; do not abbreviate keywords.

| | |
|--|--|
| Fiscal Year Organization State Program Areas Program Thrust (Critical Concern) | 1982 Extension Arkansas Home Economics and Human Nutrition and 4-H Improved Marketing, Enhancing Health and Quality of Life, Assuring Economic Stability |
| Program Component (Short Title) Subject Matter Area Commodity/Subject Sub-set | Food and Nutrition Food Buying, Storage, and Preparation Poultry, Food Buying, Food Storage, Food Preparation, Marketing, Money Management, Family Economics |
| Impact/Result | Attitudes changed, knowledge gained, leadership skills learned, marketing improved |
| Audience | 4-H Club members, general public, egg producers and processors |
| Methods | Demonstrations and practical experience in a workshop situation |

Cost-Effectiveness Information

| | | |
|--|----------------------------|---|
| QUANTIFIED IMPACTS <i>Measurable social or economic consequences</i> | Re-enter impact keyword | Enter quantity (economic or social) |
| | Knowledge gained | 2,600 4-H club members |
| | Skills learned | 1,900 4-H club members |
| | Leadership skills improved | 68 adult leaders and 1,000 4-H club members |

| | | |
|---|--|---------------------------------------|
| VOLUNTEER TIME (OPTIONAL) <i>(Average local hourly wage multiplied by hours equals dollar value)</i> | Hours: 3,470 | Dollar Value: \$17,350* |
| ESTIMATED PROGRAM COSTS (OPTIONAL) <i>(Multiply number of staff years expended by cost of one FTE.)</i> | Staff years: <i>(Include specialists, agents, paraprofessionals and administrators, etc.)</i> 3.6 agents .12 specialist Dollars: \$90,000* | |

*In addition to value of volunteer time, a grant of \$23,000 was provided by the American Egg Board which paid for an assistant specialist - 4-H (60 percent time), groceries, some workshop equipment, meals and lodging for 40 leaders at the state workshop, and supply costs for county workshops.

Appendix G

A/E System Forms from Missouri for Fiscal Year 1985

| | |
|---|---|
| Form A—Plan of Work and Evaluation Plan | |
| *TITLE CODE NO. | Major Program Title <input type="checkbox"/> New Plan <input type="checkbox"/> Amendment |
| *TEXT | |
| <u>Suggested Format</u> | |
| For the text of each Plan of Work, consider the following: | |
| - <u>Problem Situation</u> —Describe the audience problem(s) to be addressed by the program. (Brief statement of the nature of the problem situation and why it is important for extension to make input into its solution. | |
| - <u>Program Objective(s)</u> —(Related to the solution of the above audience problem.) Focus the objective(s) on audience accomplishments and results. | |
| * What are you trying to help the audience do? | |
| * How should the audience change because of this program? | |
| * What value or importance will this program have to people in the community? | |
| - <u>Plan of Action</u> —What methods and activities will you use to reach the program objective? | |
| - <u>Plans for Evaluation</u> —How will you evaluate this program? | |
| Accomplishments to be reported from this program should be based on some evaluation/review evidence and documentation. | |
| What evidence (data and information) will you collect to show level of accomplishment? And how? | |
| Some programs require several years to reach the intended objective(s). In these cases, samples of evidence of progress toward the ultimate objective(s) should be considered. | |
| *CONTACT | *Name and title *Address (include Zip code) *Telephone (include area code & extension) *Electronic mail ID (when appropriate) |

FORM A

KEYWORDS are words and phrases that others will use when searching the data base of accomplishment reports. The keywords list can be used as a guide for selecting words. In addition, words not appearing on the keyword list may also be used. Separate each distinct word or phrase with a comma; do not abbreviate keywords.

| | |
|--|----------|
| CODE NUMBER | |
| STATE | MISSOURI |
| FISCAL YEAR(S) | 1984-87 |
| PROGRAM AREA(S) (list as many as apply) | |
| MAJOR PROGRAM THRUST | |
| SUBJECT MATTER | |
| AUDIENCE | |
| METHODS/TECHNIQUES | |

ESTIMATED IMPACTS
Measurable Social or Economic Consequences

| Measurable Impacts--Keywords | Enter Quantity (economic or social) |
|------------------------------|-------------------------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

ESTIMATED DAYS ON PROGRAM

| Year | Professional | Paraprofessional | Volunteer (optional) | Scope of Program |
|------|--------------|------------------|----------------------|--|
| 1984 | | | | Number of Counties to be covered by this program |
| 1985 | | | | |
| 1986 | | | | |
| 1987 | | | | |

IV. Specific Instructions—Table I—Planned Audience Contacts

Area: List the geographic area covered by the completed table.

Program Area: Check the box for the appropriate program area.

Potential Recipients: The potential has been calculated for you. These relate to the Area Affirmative Action Plan.

Actual Contact Participation: The actual audience contacts have been calculated for you. These numbers reflect data you submitted through the audience contact report.

Contact Participation Projected: As a category, group, project the number of face-to-face external contacts to be made in the conduct of programs. Remember—this is to be an area projection by each program category group.

NOTE: This projection should represent all planned external audience contacts including those in addition to the major program trust plans of work.

Table I
 PLANNED AUDIENCE CONTACTS
 PROFESSIONAL AND PARAPROFESSIONAL STAFFS
 FY 84-87

Area _____

Program Area

AG _____ HE _____ 4-H _____
 B&I _____ CE _____ CPS _____

| | | White Not of Hispanic Origin | Black Not of Hispanic Origin | American Indian or Alaskan Native | Hispanic | Asian or Pacific Islander | Total | Total Data By Sex | |
|-------------------------------|-----|---------------------------------------|---------------------------------------|--|----------|------------------------------------|-------|----------------------|---|
| | | | | | | | | M | F |
| Potential Recipients | No. | | | | | | | | |
| | % | | | | | | | | |
| Actual Contacts (82) | No. | | | | | | | | |
| | % | | | | | | | | |
| Actual Contacts (83) | No. | | | | | | | | |
| | % | | | | | | | | |
| Contacts Projected (84) | No. | | | | | | | | |
| | % | | | | | | | | |
| Contacts Projected (85) | No. | | | | | | | | |
| | % | | | | | | | | |
| Contacts Projected (86) | No. | | | | | | | | |
| | % | | | | | | | | |
| Contacts Projected (87) | No. | | | | | | | | |
| | % | | | | | | | | |

The anticipated number of face-to-face external contacts to be made in the conduct of program including consultations, workshops, conferences and seminars.

FORM B—Accomplishment Report—NARS

*TITLE

Program Title

CODE NO.

*TEXT

Suggested Format

For the text of each report, consider the following:

- Situation—Describe the audience problem(s) addressed by the program.
- Program Objective(s)—List the objective(s) related to the solution of the above audience problem(s).
- Accomplishment(s)—(Most important part of the report.)
 - * What impact did this program have on the lives of people?
 - * What has the audience done because they have participated in this program?
 - * How has the audience changed because of this program?
 - * What is the value or importance of this program to people in the community?

Include evidence (data and information) for the assertion(s). Some developmental programs require several years to reach the intended objective(s). In these cases, samples of evidence of progress toward the ultimate objective should be considered.

- Evaluation—How did you collect the evidence (data and information) to support the above accomplishments? Type of evaluation used? Methodology used?

Evidence can come from surveys, questionnaires, tests, pictures, recorded interviews, news articles, observation, etc.

*CONTACT

* Name and title * Address (include Zip code) * Telephone (include area code & extension) * Electronic mail ID (when appropriate)

FORM B

KEYWORDS are words and phrases that others will use when searching the data base of accomplishment reports. The keyword list can be used as a guide for selecting words. In addition, words not appearing on the keyword list may also be used. Separate each distinct word or phrase with a comma; do not abbreviate keywords.

CODE NUMBER
 STATE
 FISCAL YEAR(S)
 PROGRAM AREA(S)
 (List as many as apply)
 MAJOR PROGRAM THRUSTS
 SUBJECT MATTER
 AUDIENCE
 METHODS/TECHNIQUES

Missouri

1985

Accountability/Evaluation (Cost-effectiveness Information)

| Enter Measurable Impacts/Results--Keywords | | Enter Quantity (economic or social) | | | |
|--|--------------------------|-------------------------------------|----------------------|-------------------------|--|
| *QUANTIFIED IMPACTS | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Year | EXPENDED DAYS ON PROGRAM | | | VOLUNTEER DOLLAR VALUE* | SCOPE OF PROGRAM |
| | Professional | Para-professional | Volunteer (optional) | | Number of Counties Covered by this Program |
| | | | | | |

*Average of local hourly wage for comparable work--not necessarily minimum wage--multiplied by hour equals dollar value.

Appendix H

4-H 1979: Some National Statistics

- 4-H is a unique partnership involving youth, volunteer leaders, State Land-Grant Universities, Federal-State-Local governments, and the private sector. The overall mission of the Cooperative Extension Service in conducting 4-H programs is the development of youth individually and as responsible and productive citizens.
- 4-H is for all youth—rural and urban.
- 4-H programs are conducted in 3,150 counties of the United States, District of Columbia, Puerto Rico, the Virgin Islands, and Guam.
- 4-H alumni (enrolled participants in 4-H since its inception) now total over 39 million.
- 82 countries have youth programs similar to 4-H, with an enrollment of approximately 5 million.

The SEA-Extension, United States Department of Agriculture offers its programs to all eligible persons regardless of race, color, sex, religion, age, national origin, or handicap; and is an equal opportunity employer.

YOUTH IN 4-H

5,078,022 youth primarily 9-19 years of age participated in 4-H, as follows:

- 4,129,523 youth were members of 136,483 4-H Clubs and special interest groups. This included 1,994,207 in 91,740 4-H Clubs; 2,135,316 in 44,743 4-H special interest groups.
- 639,103 youth participated in 4-H Expanded Food-Nutrition Education Programs, primarily for low income city youth.
- 309,396 youth were enrolled in 4-H Instructional TV Program Series.

Youth attending Extension 4-H Youth conducted camps totalled 389,430.

Of the 4,129,523 youth in 4-H Clubs and 4-H Special Interest Groups—

- 19.6% (810,676) — lived on farms.
- 39.6% (1,636,475) — lived in towns under 10,000 and open country.
- 18.0% (744,451) — lived in towns and cities of 10,000-50,000.
- 10.0% (409,391) — lived in suburbs of cities over 50,000.
- 12.8% (528,530) — lived in central cities of over 50,000.
- 55% (2,268,783) — girls.
- 45% (1,860,740) — boys.

Ages included:

- 57.4% (2,369,157) — pre-teens (9-11)
- 29.2% (1,207,430) — early teens (12-14)
- 13.4% (552,936) — middle and upper teens (15-19)

Of the total number of youth enrolled in 4-H Clubs, 4-H special interest groups and 4-H Expanded Food and Nutrition Education Programs, about 24% are from minority racial-ethnic groups.

VOLUNTEERS IN 4-H

565,842 4-H volunteer leaders—adults, juniors and teens—were a part of the volunteer staff assisting in 4-H-Youth programs:

383,816 — 4-H adult leaders.

137,384 — 4-H junior and teen leaders.

44,642 — leaders assisting in 4-H EFNEP

For every hour spent by a professional Extension worker on 4-H, volunteers spent 12 hours—equivalent to 25 8-hour days per year for each volunteer. Estimated value of total volunteer time devoted to 4-H last year plus their out-of-pocket expenses is over \$600,000,000.

There is substantial involvement and assistance to 4-H programs by resource people, business, industry, agricultural and civic groups, most of which is not included in the volunteer leadership listed above.

4-H PROJECT ENROLLMENTS—1979

| | |
|---|------------------|
| ANIMALS AND POULTRY | 1,381,333 |
| Animal Science, Vet Science, Beef, Dairy, Horses and Ponies, Sheep, Swine, Goats, Poultry, Dogs, Rabbits, Other Small Animals. | |
| PLANTS AND SOILS | 615,277 |
| Plant Science, Crops, Home gardens, Ornamental Horticulture, Flower Gardening. | |
| ENERGY, MACHINES AND EQUIPMENT | 1,107,547 |
| Tractors, Small Engines, Automotive, Bicycle Care, Electric, Aerospace, Shop, Energy Conservation, Other Engineering Projects. | |
| ECOLOGY, NATURAL RESOURCES | 692,485 |
| Ecology and Environment, Conservation of Natural Resources—Soil Conserva- tion; Forestry; Wildlife; Air and Climate; Geology and Minerals; Marine Science. | |
| ECONOMICS, JOBS AND CAREERS | 142,786 |
| Economics and Business, Marketing, Career Exploration | |
| COMMUNITY DEVELOPMENT, SERVICE, GOVERNMENT | 752,046 |
| Community Development, Know Your Government, Emergency Preparedness, Safety, Leadership Skills. | |
| LEISURE EDUCATION AND CULTURAL ARTS | 1,074,192 |
| Recreation Leadership; Arts, Crafts, Music; Tourism | |
| CULTURAL UNDERSTANDING AND EXCHANGES | 89,818 |
| Cultural Heritage Study—Domestic, International Study, Exchanges—International and Domestic. | |
| HEALTH, PERSONAL DEVELOPMENT, RELATIONSHIPS | 612,717 |
| Health, Physical Fitness, First Aid; Personal Development; Family Life Education, Child Care. | |
| INDIVIDUAL AND FAMILY RESOURCES | 1,466,519 |
| Home Management; Home Furnishings, Equipment and Housing; Consumer Education; Clothing and Textiles; Food and Nutrition, Food Preservation | |
| COMMUNICATIONS ARTS AND SCIENCES | 450,278 |
| Public Speaking, Photography, Graphic Arts, 4-H Ambassadors. | |
| INTRODUCTORY, GENERAL MISCELLANEOUS | 287,513 |

*Does not include participation by 639,103 youth in 4-H Expanded Food and Nutrition Educa-
tion Programs.

*Individual 4-H members enroll in one or more organized projects each year. The average
per member in 1979 was 2.1 projects. Total enrollment in 4-H projects was 8,672,511.*

4-H PROGRAM THRUSTS—CURRENT AND FUTURE

- Expanded programs in career exploration youth employment, economic understanding.
- Programs to involve youth in improving the environment and conserving natural resources.
- 4-H food and fiber programs—production, processing, marketing, and consumption.
- Increased nutrition education opportunities for youth.
- Involvement of youth in conservation and wise use of energy resources.
- 4-H programs to strengthen families and better prepare youth for their responsibilities.
- Health and safety education for youth.
- Practical youth education for consumer decisions and responsibilities.
- Youth involvement in community development, leadership and citizenship activities.
- Leisure education for youth.
- 4-H international programs.

Special efforts are being made to:

- Reach larger numbers of youth from all socio-economic, cultural and ethnic groups, both rural and urban, including the handicapped.
- Double the number of volunteers serving 4-H.
- Strengthen staff development and training programs.

These program thrusts are recommendations of 4-H in Century III, a program goals statement developed by State and National Extension staffs, and are currently being implemented in all States.

Appendix I

This Is 4-H

4-H is the youth education program of the Cooperative Extension Service. This informal educational program is conducted by the U.S. Department of Agriculture, State Land-Grant Universities, County Governments and combines the work of Federal, State and local Extension staff and volunteer leaders. Participation in the 4-H program is open to all interested youth, regardless of race, color, sex, creed, national origin, or handicap. Participants are primarily between the ages of 9 and 19 and reside in every demographic area; farm, city and in between. The success of the 4-H program is attributed to the nearly 600,000 volunteer leaders who are backed by the strong educational base of the Land-Grant University staff in every county of the nation.

4-H participants are youth taking part in programs provided as the result of action planned and initiated by Extension personnel in cooperation with volunteer leadership at the local level. This includes youth participating in programs conducted through the 1890 colleges and universities and those involved in the Expanded Food Nutrition Education Program.

Youth may participate in 4-H through a variety of program delivery modes. These include organized 4-H clubs, 4-H special interest or short-term groups, 4-H school enrichment programs, 4-H instructional TV, 4-H camping or as individual 4-H members.

The mission of 4-H is to assist youth in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive and contributing members of society. This mission is carried out through the involvement of parents, volunteer leaders and other adults who organize and conduct educational subject/project experience in community and family settings. These learn-by-doing experiences are supported by research and Extension functions represented by the Land-Grant Universities, 1890 Institutions and Tuskegee Institute, USDA, and cooperating counties with support from the National 4-H Council and other private support.

These youth contribute to energy conservation, environmental improvement, community service and food production, and participate in programs that aid youth employment and career decisions, health, nutrition, home improvement, and family relationships. As a result of international cooperation with many countries, 4-H is also contributing to world understanding. In the process, 4-H youth apply leadership skills, acquire a positive self-concept and learn to respect and get along with people.

A dynamic growing organization, 4-H has expanded steadily for the past 25 years. The most recent statistics indicate that there are approximately 5 million boys and girls involved in this youth educational program of Extension. Since 1914 over 40 million youth from all States, District of Columbia, Puerto Rico, Virgin Islands, and Guam have participated in 4-H.

Appendix J

Extension in the '80s

A Perspective for the Future of the Cooperative Extension Service

Executive Summary, excerpted from "Extension in the '80s, A Perspective for the Future of the Cooperative Extension Service," a report of a Joint Committee of the U.S. Department of Agriculture and the National Association of State Universities and Land-Grant Colleges, June 1983.

Socio-economic change across the country, while with us since the nation began, has been occurring even more rapidly in the past decade, reaching into both rural and urban America. To remain a vital force during such rapid change, both now and in the future, the Cooperative Extension system must be prepared to modify its organization, focus, and use of resources. Further, priorities need to be set as Cooperative Extension reviews its programs and future plans.

"Extension in the '80s, A Perspective for the Future of the Cooperative Extension Service," represents a systemwide response and set of guidelines to the challenge of rapid change. The report contains results of a year-long study by the 21 members of a Joint Committee appointed by John Block, Secretary of Agriculture, and Robert Clodius, President, National Association of State Universities and Land-Grant Colleges.

Future Role for Cooperative Extension

The Committee's charge was to produce a document to serve as a guide for the future mission, scope, priorities, and policies and to review and restate the roles and responsibilities of each of the partners—federal, state, and county—in the Cooperative Extension system.

The Committee received inputs from many groups and individuals in writing and in open hearings. It received responses from an extensive mail survey with returns from nearly 4,500 leaders and individuals from the private sector and 14,000 Cooperative Extension Service professional staff nationwide.

The official report was made to Secretary Block and President Clodius on February 28, 1983, in Washington, D.C. Co-chairs of the Committee, who presented the report were Ray Lett, Executive Assistant to the Secretary, and Daniel Aldrich, Jr., Chancellor, University of California—Irvine.

Selected Recommendations and Guidelines for Cooperative Extension

Mission

The basic mission of Cooperative Extension is to disseminate and encourage the application of research-generated knowledge and leadership techniques to individuals, families, and communities. . . . Dissemination of research knowledge and the application of that knowledge to practical problems is as important now as in the past.

Priorities

The Cooperative Extension system must establish priorities within six major program areas . . . the agricultural system, natural and environmental resources, community and small business development, home economics/family living, 4-H/youth education and development, and international concerns.

Clientele

Ways must be found to reach more people with educational programs. . . . Much sharper delineation of target audiences is needed.

Flexibility

Cooperative Extension programming must retain broad flexibility at all levels if it is to remain relevant and respond to the dynamics of change for the greater good of people and their communities. . . . The states and counties must retain flexibility for scope of programs and definitions of Extension clientele.

Federal/State/County Partnerships

The importance of linkages among the Service, all three levels of government and America's community leaders was reaffirmed.

Research

Extension educational programs are in large part research-

driven. Research should remain the base for the system's major educational and information efforts. . . . We urge the Congress and the State legislatures to reexamine their investments in research as a basis for national progress. . . . Additional resources are needed for applied research and demonstrations, which are essential for effective technology transfer.

Extension in Land-Grant Universities

Administrators and faculty of land-grant universities must place lifelong learning on a plane equal to that of research and preparatory education. . . . A tested system exists for extending knowledge about agriculture, home economics and natural resources to local communities throughout the nation. Ways must be found to involve other disciplines in the support of this system's established programs.

Interagency Linkages

There is need to reexamine and strengthen Extension Service linkages with other USDA agencies and other Departments of government as Extension's function calls for a flow of information from those agencies to the nationwide Cooperative Extension system for relay to the public. . . . Interagency partnerships are essential for efficient public service.

Volunteers

Some 1.5 million adult volunteers perform numerous roles under the guidance of Extension professionals. This volunteer system deserves encouragement from all three legal partners as it is basic to the success of Cooperative Extension in America. Greater resource allocation is encouraged for leader training and development in all Extension program areas.

Private Sector

At the national level, the private sector provides major resources through national foundations, corporations, and individuals. . . . In every county in America, individuals, local business and industrial firms, and farms and home-related organizations provide substantial funds . . . (for) programs each year. The legal partners should continue to recognize and encourage this commitment.

Methodology

Cooperative Extension is to be commended for its effective utilization of diverse teaching methods in its programming, but the system is encouraged to use new electronic technology in providing viable educational opportunities to expanded audiences.

Evaluation

Because evaluation is important to Extension's

effectiveness, all states are encouraged to allocate adequate resources for developing improved evaluation methods. Cooperative Extension must involve the public and decisionmakers in Extension evaluation efforts; by such activity, these people will come to understand Extension better.

Resources

Support for Extension programs in real dollars has been static for a decade or more. . . . Support must be increased if the Cooperative Extension system is to fulfill its mission of transmitting to the people practical knowledge generated by the land-grant system, the USDA and related agencies.

A Unique Achievement

The Cooperative Extension Service is a unique achievement in American education. The system has been a major asset to the nation and to the world. The partners in the system depend on one another, yet each has considerable autonomy in funding, staffing, and programming.

Cooperative Extension is characterized by two-way communication between those who work for Extension and those who use it. It is what Extension has helped people do for themselves that has achieved the greatest results.

The Committee has identified a number of Extension activities that require change. Yet this report reaffirms many basic tenets concerning the organization, operation, and programming of the Extension system. If the changes recommended by the committee are adopted, the Cooperative Extension Service will, the Committee believes, be able to play a larger and more vital role in the years that lie ahead.



Administrator
Extension Service



Director, CES
New York State Colleges of
Agriculture & Life Sciences and
Chairman, Extension Committee on
Organization and Policy (ECOP)

June 1983

International Programs

The increasing interdependence of all nations, the importance of foreign markets to American agriculture, and our national dedication to world-wide development suggests important international roles for Extension.

Efforts to increase international understanding should be broadened. Significant efforts—including youth, farmer-to-farmer, scientist-to-scientist, and expanding agricultural trade—are now conducted and need to be enhanced.

The Cooperative Extension concept is of great value to less developed nations of the world. Programs to provide Extension training to foreign leaders who come to our country should be increased.

Extension has the expertise in training that could be transferred to U.S. agencies responsible for international work. If Extension assumes these responsibilities, additional resources must be made available.

4-H Youth Education and Development

4-H, the youth education program of the Cooperative Extension Service, is one of Extension's most effective and successful components in transferring knowledge, technology, and leadership skills to the local level. This program is a significant force in strengthening family relations and community values since it is conducted in family and community settings, usually with the help of family and community leaders.

Volunteers are the real backbone of the 4-H program and they help to make it one of the most cost-effective programs in government. The key to 4-H success lies in the effective meshing of financial resources from the business sector with the spirit and energies of more than half a million volunteers.

Public funding at state, local, and national levels and *the knowledge base* of the land-grant university system and the U.S. Department of Agriculture . . . are essential ingredients in the 4-H story, and all must be continually strengthened for 4-H to remain dynamic and vital.

Youth in rural and urban areas should have access to Extension 4-H programs, regardless of the economic status of such youth. Expansion in urban areas, however, will depend on development of effective delivery systems which require volunteer leaders, program support and resources for such expansion.

4-H programs in Extension must become more visible to a larger segment of the population. Traditionally, the Cooperative Extension Service has not taken enough credit for the impact the 40 million 4-H alumni have had on our society.

Extension must place much greater emphasis on the private sector for the volunteer and financial resources necessary to expand 4-H programs.

Subject matter and educational support should be received from disciplines that are a part of all Cooperative Extension Service programs and from some disciplines in other divisions of the university.

4-H youth professionals should limit time allocated to activities and efforts that can be handled by program aides and volunteers; this move will allow professionals to focus on volunteer leader training and management and other significant facets of youth education.

The focus on organized clubs and activities that provide continuing reinforcement of educational experiences over extended periods of time should be strengthened.

Home Economics/Family Living

The well-being of American families is essential to national strength since the values that underlie national stability are forged by families. Cooperative Extension can strengthen families by providing them research-based knowledge that can be applied to such areas as provision for food, clothing, shelter, and emotional support.

The development of human potential and self-reliance should be a major mission of Home Economics/Family Living programs, as these qualities make individuals more effective and productive members of society.

Home Economics/Family Living programs should seek to help individuals and families identify their needs, conserve their resources, achieve a desired level of living, and be informed participants in the evaluation and formulation of public policy.

Family Economic Stability and Security; Energy and Environment; Food, Nutrition, and Health; Family Strengths and Social Environment should be the priority areas of focus for Home Economics/Family Living programs.

More than 600,000 volunteers in both rural and urban areas nationwide multiply the educational efforts of Home Economics professionals. Home Economics/Family Living programs should continue to focus on leadership development and training of volunteer leaders in order to further expand program impact.

Families in both rural and urban areas benefit from the content of Home Economics/Family Living programs that are relevant to both. These programs should continue to serve families in both areas.

An adequate and sustained level of research funding is imperative to address the critical concerns of families in America. Extension programs provide solutions to the critical societal issues which these families face; institutions/agencies with competencies in home economics research should expand their efforts.

Community and Small Business Development

Cooperative Extension work in "rural development" or "community resource development" is increasingly important today since the constituent economic units in small communities—farms, processors, and small manufacturing concerns—are closely interrelated in terms of economics. Further, rural living environments, the quality of life, public services, and cultural and educational opportunities form a single concern.

The goals of community development are vigorous communities and community leadership, profitable businesses, a prosperous agriculture, and vital organizational leadership.

Two target audiences should receive special focus in the period ahead.

- Public officials, both elected and appointed, and organizational leaders who deal with community organizations.
- Those engaged in small businesses including the tourist/recreation industry.

The land-grant university system and the U.S. Department of Agriculture have only part of the research information and talent needed in this area. Additional information and resources should be sought through increased linkages with federal agencies, such as the Department of Commerce, the Small Business Administration, the Department of Health and Human Services, the Environmental Protection Agency, and the Department of the Interior. Likewise, within the land-grant university, resources are needed from schools of business, health sciences, and other disciplines.

Natural and Environmental Resources

The Cooperative Extension Service has an opportunity in the 1980s to improve private and public management decisions relating to the nation's natural resources. Such improvement could bring about greater utilization of natural resources while upgrading the quality of the environment.

Extension programs in Natural and Environmental Resources should increase applications of the best management technology to improve: (1) land-use decisions; (2) management of such renewable resources as forests, rangelands, water, fish, and wildlife; and (3) production of such nonrenewable resources as minerals, with particular attention to rehabilitation of mined lands.

Computer technology and related information management systems are as important to the nation's forests, forest products firms and natural resources programs as they are to agriculture and farm management. The Cooperative Extension Service needs to develop software for forest and natural resources producers and processors that will enhance their management decisions.

Extension can be a key source of information to clientele on (a) what is possible, and (b) what is feasible in management and development of the nation's natural resources.

Increase Natural Resources Research to improve the knowledge base for Extension programs. Stronger linkages of land-grant Extension and research bases with other USDA agencies is recommended and should include the Environmental Protection Agency and the private sector. Within the land-grant institutions, such disciplines as biology, law, political science, geology, and engineering should be explored as supplemental research information bases to the Extension system.

The Extension Service should strongly consider the following areas in allocating its resources within the field of natural resources and the environment:

- Private forests/woodlots, rangelands, and wetlands management
- Aquaculture, animal damage control, and other wildlife and fisheries management on private lands
- Land use and related public policy
- Soil conservation and management erosion control
- Surface and ground water quantity and quality; water management
- Solid waste disposal and waste management

Young people in 4-H and in schools should know about natural resources and the environment to help them develop a sense of community values and environmental relationships for the future.

The Agricultural System

Agricultural programs have always been the major thrust of the Cooperative Extension effort and will remain the backbone of the Extension Service. The need for programs supporting the food and fiber system will be as important in the future as in the past. As program priorities are set for the immediate future at national, state, and county levels, the following areas should receive strong consideration:

Computer technology hardware for farmers and ranchers is expanding more rapidly than the software agricultural producers need. The Extension system in concert with agricultural researchers must assume the responsibility of translating research results into software packages accessible to family farms, related agribusiness, marketing institutions, and, especially, farm and home financial management.

Marketing strategies should be a major focus for agricultural producers. These strategies should relate to the marketing system, marketing forces, including product handling, processing, movement, and pricing from the farm and feedlot to the consumer's table. Electronic techniques need to be developed in marketing, grain storage, handling, and marketing for quality control.

Systems approaches to farm and ranch production, management, and marketing should be developed, including: Integrated reproduction management, integrated pest management, minimum tillage, improved varieties, and fuller application of new technology.

Dissemination of agricultural-related information to consumers and government officials should be increased to enhance their understanding of agriculture and policy needs of agriculture.

Safe and wise use of agricultural chemicals as related to food and fiber production, the environment, and the total food chain should be further emphasized by Extension and the land-grant system.

Practical "how to" information for use by homeowners and gardeners should be made

available to more of this clientele and more efficient methods of reaching this audience must be explored and developed.

Development of agribusiness near the point of farm/ranch production should be increased. This will require educational effort in such areas as financial planning, market analysis, management and job training.

Bibliography

- Americans Volunteer-1974*. Office of Planning and Policy Action, Washington, D.C., 1974.
- Annual reports of the USDA Secretary to Congress. Washington, D.C.: 1948-1975.
- "Appropriations By Source for Cooperative Extension Service." Information supplied to state extension directions from Extension Service, USDA, Washington, D.C., February 1982.
- Atwood, Rufus. "The Origin and Development of the Negro Public College With Special Reference to the Land-Grant College." *Journal of Negro Education*, Vol. XXXI, Summer 1962.
- Axinn, George, and Sudhaker Thorat. *Modernizing World Agriculture*. New York: Praeger Press, 1972.
- Bennett, Claude F. *Analyzing Impacts of Extension Programs*. Extension Service, USDA, ESC 575. Washington, D.C.: 1976.
- Benor, Daniel, and James Q. Harrison. *Agricultural Extension: The Training and Visit System*. Washington, D.C.: World Bank, 1977.
- Bergevin, Paul, Dwight Morris and Robert Smith. *Adult Education Procedures*. Greenwich, Conn.: The Seabury Press, 1963.
- Boone, E. J., and J. Kincaid. "Historical Perspectives of the Programming Function in Extension." *The Cooperative Extension Service*, H.C. Sanders, ed. Englewood Cliffs, N.J.: Prentice Hall, 1966.
- Bower, E. M. "A Study of Project Leaders and Non-Project Leaders in the Adult Home Economics Program in Hocking County, Ohio." Master's Thesis, University of Wisconsin, Madison, Wis., 1959.
- Boyce, James K., and Robert E. Evanson. *Agricultural Research and Extension Programs*. New York: Agricultural Development Council, 1975.
- Broom, Leonard, and Philip Selznick. *Sociology*, 2nd edition, 6th printing. Evanston, Ill.: Row, Peterson & Co., 1961.
- Brown, Lester, *The Twenty-Ninth Day*. New York: Norton and Company, 1978.
- Brunner, Edmund des, et al. *An Overview of Adult Education Research*. Chicago, Ill.: Adult Education Association, 1959.
- Byrn, Darcie, and others. *Evaluation in Extension*. Topeka: H. M. Ives & Sons, 1969.
- Campbell, Thomas Monroe. *The Movable School Goes to the Negro Farmer*. Tuskegee, Ala.: Tuskegee Institute, 1946.
- Challenge and Change: A Blueprint for the Future*. Extension Service, USDA, Washington, D.C., April 1983.
- Cooperative Extension Service: A Nationwide Knowledge System for Today's Problems*. Colorado State University, Extension Service Bulletin 35180. Fort Collins, Colo.: August 1981.
- Cooperative Extension Service in Transition*. ECOP Report, University of Wisconsin, Madison, Wis., August 1979.
- Cooperative Extension Service Programs: A Unique Partnership Between Public and Private Interests*. Extension Service, USDA, Washington, D.C., June 1976.
- Cooperative Extension Service, Tuskegee Institute in Retrospect 1971-1977*. Alabama Cooperative Extension Service, Tuskegee Institute, 1978.
- Corey, Stephen M. *Action Research to Improve School Practices*. New York: Bureau of Publications, Teachers College, Columbia University, 1953.

- Craig, Oliver. "Toward Better Program Development." *Journal of Extension*, Volume XV, November/December 1977.
- Cummings, Gordon. *CRD—How Extension Workers Perceive Their Job*. Federal Extension Service, USDA, E.S. Circular No. 568. Washington, D.C.: July 1970.
- A Declining Rural America: Some Alternatives and Consequences*. Tuskegee, Ala.: Human Resources Development Center, Tuskegee Institute, 1977.
- Development of Research at Historically Black Land-Grant Institutions*, Association of Research Coordinators, 1890 Institutions, 1976.
- DiFranco, Joseph. *A Collection of Principles and Guides*. Cornell University, Comparative Extension Education Publication No. 4. Ithaca, N.Y.: June 1958.
- Drucker, Peter F. *Management*. New York: Harper and Row, 1974.
- ECOP committee report on international agriculture, January 1984.
- Eddy, Edward D. Jr. *College for Our Land and Time*. New York: Harper Brothers, 1957.
- Effective Marine Advisory Services*. Office of Sea Grant, U.S. Dept. of Commerce, Washington, D.C., April 1978.
- Evans, J. A. "Extension Work Among Negroes." USDA Circular 355. Washington, D.C.: 1923.
- Extension Education for a Growing Agriculture*. Extension Committee on Organization and Policy, Cooperative Extension Service, Purdue University, Lafayette, Ind., February 1974.
- Extension in the 1980s, A Perspective for the Future of the Cooperative Extension Service*. A report of a joint committee of the USDA and NASULGC. University of Wisconsin, Madison, Wis.: May 1983.
- Extension International: People and Food*. Extension Committee on Organization and Policy, Cooperative Extension Service, South Dakota State University, 1967. *
- Extension Program Development and Its Relationship to Extension Management Information Systems*. Iowa State University, Cooperative Extension Service, Ames, Iowa, February 1974.
- Extension Service, USDA: Functions, Objectives and Responsibilities*. Extension Service, USDA, Washington, D.C., May 1971.
- Ferguson, Clarence M. *Reflections of an Extension Executive*. National Agricultural Extension Center for Advanced Study, University of Wisconsin, Madison, Wis., October 1964.
- Findlay, E. Weldon. "Curriculum Development for Professional Leaders in Extension Education." Ph.D. Thesis, Cornell University, Ithaca, N.Y., 1969.
- Four-H in Century III*. Extension Committee on Organization and Policy, Michigan State University, East Lansing, Mich., 1976.
- Four-H in 1979, Some National Statistics*. SEA-Extension, USDA, Washington, D.C., 1980.
- Frazier, L. P. *Steps to Success: A Kansas Town on the Move*. Kansas State University, Cooperative Extension Service Publication No. C-587. Manhattan, Kan.: March 1978.
- Frazier, L. P. *Westmoreland: Activities and Action Stir Community Pride*. Kansas State University, Cooperative Extension Service Publication No. C-579. Manhattan, Kan.: September 1977.
- Frutchey, Fred. "The Teaching-Learning Process," *The Cooperative Extension Service*, H. C. Sanders, ed. Englewood Cliffs, N.J.: Prentice Hall, 1966.
- Gilbertson, H. W. *An Analysis of the Sources and Uses of Cooperative Extension Funds*. USDA, Circular 475. Washington, D.C.: August 1951.
- Groening, Ralph E. *Funding of Extension Programs 1914-1977*. Working paper for evaluation of the Cooperative Extension Service, Washington, D.C., 1979.
- Gross, John G. *Evaluation Planner for Extension*. Extension Service, USDA, ESC 585. Washington, D.C.: 1977.
- Handbook for County Extension Councils*. Kansas State University, Cooperative Extension Service Publication 350. Manhattan, Kan.: October 1975.
- Harrington, Fred H. *The Future of Adult Education*. San Francisco: Jossey-Bass Publishers, 1972.
- Hatry, Harry P., Richard E. Winnie and Donald M. Fisk. *Practical Program Evaluation for State and Local Governmental Officials*. Washington, D.C.: The Urban Institute, 1973.
- Hightower, Jim. *Hard Tomatoes, Hard Times*. Cambridge, Mass.: Schenkman Publishing Co., 1978.
- A History of Agricultural Extension Work in the United States, 1785-1923*. USDA, Miscellaneous Publication No. 15. Washington, D.C.: October 1928.
- Houle, Cyril. *The Design of Education*, 2nd ed., San Francisco: Jossey-Bass Publishers, 1974.

- Houle, Cyril. *The Inquiring Mind*. Madison, Wis.: University of Wisconsin Press, 1961.
- How the United States Improved Its Agriculture*. USDA, Economic Research Service Foreign Publication No. 76. Washington, D.C.: 1964.
- Jenkins, John. "Historical Overview of Extension." SEA-Extension. USDA, Mimeo. Washington, D.C.: 1979.
- Kelley, Thomas. *A History of Adult Education in Great Britain*. Liverpool, England: Liverpool University Press, 1962.
- Kelsey, L. D., and C. C. Hearne. *Cooperative Extension Work*, 3rd ed. Ithaca, N.Y.: Cornell University Press, 1963.
- Kidd, J. R. *How Adults Learn*. New York: The Associated Press, 1973.
- Kirby, Edwin L. "Extension Serves Both Producers and Consumers." Address at New Hampshire Annual Extension Conference, June 1976.
- Knowles, Malcolm. *The Adult Learner: A Neglected Species*. Houston, Texas; Gulf Publishing Co., 1973.
- Kreitlow, Burton, E. W. Aiton and Andrew Torrence. *Leadership for Action in Rural Communities*. Danville, Ill.: Interstate Printers, 1960.
- Leagans, J. P. "Setting Up Learning Situations." Mimeo, Cornell University, Ithaca, N.Y., Undated.
- Lionberger, H. *Adoption of New Ideas and Practices*. Ames, Iowa: Iowa State University Press, 1960.
- Lionberger, H., and Cheng. *Agriculture and Community Development Extension in Missouri*. University of Missouri-Columbia, Missouri Agricultural Experiment Station Research Bulletin 1041. Columbia, Mo.: June 1982.
- Lionberger, H., and P. Gwin. *Communication Strategies*. Danville, Ill.: Interstate Publishers, 1982.
- Litwin, George, and Robert Stringer. *Motivation and Organizational Climate*. Cambridge, Mass.: Harvard University, 1968.
- Maslow, A. H. *Motivation and Personality*. New York: Harper, 1954.
- Mercier, William B. *Extension Work Among Negroes, 1920*. USDA Circular 190. Washington, D.C.: 1921.
- "Minnesota Extension Program Development Process—Part 2, Frame of Reference." University of Minnesota, Agricultural Extension Service, St. Paul, Minn., 1975.
- Morris, F. B. *Planning County Agricultural Extension Programs*. Extension Service, USDA, Circular 260. Washington, D.C.: 1937.
- Mosher, A. T. *An Introduction to Agricultural Extension*. New York: Agricultural Development Council, 1978.
- Mosher, A. T. *Getting Agriculture Moving*. New York: Agricultural Development Council, 1966.
- Munson, Mary K. *A Comparative Study of Kansas and Missouri Extension Professionals' Attitudes Related to Employment of and Appropriate Tasks for 4-H Youth Paraprofessionals*. Ph.D. Dissertation, Kansas State University, Manhattan, Kan., 1978.
- National Summary of Extension Level of Effort for FY 1979*. Extension Service, USDA, Washington, D.C., March 1980.
- Oliver, Craig, "Toward Better Program Development." *Journal of Extension*, Vol. XV, November/December 1977.
- Onazi, D. C. "Comparative Analysis of the Training Needs of Potential Agricultural Extension Workers and Principal Problems of Extension in the Northern States of Nigeria". Ph.D. dissertation, Kansas State University, Manhattan, Kan., 1973.
- Payne, William. "The Negro Land-Grant Colleges." *Civil Rights Digest*, Spring 1970.
- A People and A Spirit*. Joint USDA-NASULGC Extension Study Commission Report. Extension Service, Colorado State University, Fort Collins, Colo., 1968.
- Peterson, Renee, and William Petersen. *University Adult Education*. New York: Harper, 1960.
- Pittman, Joe, Richard Young and Clarence Cunningham. "Extension Staffing Patterns: Clientele Views." *Journal of Extension*, Vol. XIV., July/August 1976.
- Prawl, Warren. "Insights Into the Cooperative Extension Service." Survey conducted September 1979.
- Prawl, W. C., and R. Medlin. *Kansans' Right to Know—108 Years of Extension Education*. Manhattan, Kan.: Cooperative Extension Service, Oct. 1976.
- Raudabaugh, J. N. Extension Service, USDA, Mimeo. Washington, D.C.: May 1974.

- Read, Hadley. *Communication: Methods for All Media*. Urbana, Ill.: University of Illinois Press, 1972.
- Reck, Franklin M. *The 4-H Story—A History of 4-H Club Work*. Ames, Iowa: Iowa State University Press, 1951.
- “Report on Cooperative Agricultural Extension in the United States.” State Relations Service, USDA, Washington, D.C., 1917.
- Robinson, Jerry W., Jr., and Roy A. Clifford. *Leadership Roles in Community Groups*. University of Illinois, Cooperative Extension Service, North Central Regional Publication 36-3. Urbana, Ill.: 1974.
- Rogers, Everett M., and F. Floyd Shoemaker. *Communication of Innovations: A Cross Cultural Approach*, 2nd ed. New York: Free Press, 1971.
- “Salary Analysis of State Extension Service Positions.” Letter to state extension directors and extension administrators from Extension Service, USDA, Washington, D.C., Nov. 16, 1981.
- Sanders, H. C., ed. *The Cooperative Extension Service*. Englewood Cliffs, N.J.: Prentice-Hall, 1966.
- Schaller, W. Neill. “New Directions for Extension.” *Extension Review*, Vol. IVIX, No. 3, May/June 1978.
- Schindler-Rainman, Eva, and Ronald Lippitt. *The Volunteer Community*, 2nd ed. Fairfax, Va.: NTL Learning Resources Corporation, 1975.
- Shramm, Wilbur, ed. *The Process and Effects of Mass Communication*. Urbana, Ill.: The University of Illinois Press, 1954.
- Schultz, Theodore. “Urban Developments and Policy Implications for Agriculture.” *Economic Development and Cultural Change*. Chicago: University of Chicago Press, 1966.
- Scott, Roy. *The Reluctant Farmer: The Rise of Agricultural Extension to 1914*. Urbana, Ill.: University of Illinois Press, 1970.
- Smith, C. B., and M. C. Wilson. *The Agricultural Extension System of the United States*. New York: Wiley and Sons, 1930.
- Spath, Clara, and Sally Edling. “Home Economics Uses Private Funding.” *Journal of Extension*, Vol. XVII, July/August 1979.
- “State of Missouri Statutes Pertaining to University of Missouri Extension Programs.” Missouri Cooperative Extension Service, Columbia, Mo., Undated.
- Steele, Sara M. *Evidence and Evaluation*, Vol. 1, No. 3. University of Wisconsin, Mimeo. Madison, Wis.: January 1968.
- Stufflebeam, Daniel, et al. *Educational Evaluation and Decision Making*. Itasca, Ill.: Peacock Publishers, 1971.
- Tead, Ordway. *The Art of Leadership*, 24th printing. New York: McGraw-Hill Book Co., 1935.
- Tough, A. *The Adults' Learning Projects*. Toronto, Canada: Ontario Institute for Studies in Education, 1971.
- True, Alfred C. *A History of Agricultural Extension Work in the United States 1785-1923*. USDA Misc. Publication No. 15. Washington, D.C.: 1923.
- Tyler, Ralph. *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press, 1950.
- Tyler, Ralph. “The Use of Concepts in Developing a Curriculum,” *The Concept Approach to Programming in Adult Education—With Special Application to Extension Education*, Mary Collings, ed. Washington, D.C.: National Technical Information Service, U.S. Dept. of Commerce, 1974.
- VandeBerg, Gale, ed. *The Cooperative Extension Service in Transition*. Extension Committee on Organization and Policy, University of Wisconsin, Madison, Wis.: 1979.
- Van Dersal, William Richard. *The Successful Supervisor*, 3rd ed. New York: Harper & Row, 1974.
- Verner, Coolie. “Methods and Techniques,” *An Overview of Adult Education Research*. Chicago, Ill.: Adult Education Association, 1959.
- Warner, Paul D. “A Comparative Study of Three Patterns of Staffing Within the Cooperative Extension Service.” Ph.D. Dissertation, Ohio State University, Columbus, Ohio, 1973.

- Webster's New World Dictionary of the American Language*, 2nd college ed. New York: The World Publishing Co., 1972.
- Williams, C. A. "Role and Relationship of Predominantly Negro Land-Grant College to the Cooperative Extension Service." Unpublished paper, 1968.
- Wilson, Marlene. *The Effective Management of Volunteer Programs*. Boulder, Colo.: Volunteer Management Associates, 1976.
- Wilson, M. C., and Gladys Gallup. *Extension Teaching Methods*. USDA Extension Service Circular 495. Washington, D.C.: 1955.
- Wilson, M. L. "Educational Principles," *The Spirit and Philosophy of Extension Work*, R. K. Bliss, ed. Washington, D.C.: Epsilon Sigma Phi and Graduate School, USDA, 1952.
- World Atlas of 4-H and Similar Youth Educational Programs*, 3rd ed. Washington, D.C.: National 4-H Foundation, 1970.
- Wortman, Sterling, and Ralph Cummings, Jr. *To Feed This World*. Baltimore, Md.: Hopkins University Press, 1978.
- Yearbook*. USDA, Washington, D.C., 1909.
- Young, Richard E., and Clarence Cunningham. *Area Staff Compared With County-Only Staffing in the Cooperative Extension Service in the United States*. Columbus, Ohio: Cooperative Extension Service, 1974.

ISBN 0-933842-00-7 \$11.95