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AN ASSESSMENT OF THE PUBLIC'S AWARENESS, PERCEPTION AND USE OF THE MICHIGAN COOPERATIVE EXTENSION SERVICE

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Darlene Kaye Hanenburg

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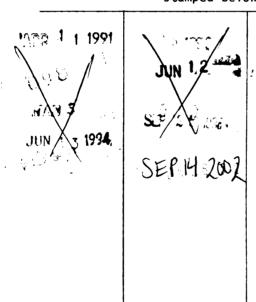
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# AN ASSESSMENT OF THE PUBLIC'S AWARENESS, PERCEPTION AND USE

OF THE

#### MICHIGAN COOPERATIVE EXTENSION SERVICE

Ву

Darlene Kaye Hanenburg

#### A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Agricultural and Extension Education

1986

#### **ABSTRACT**

AN ASSESSMENT OF THE PUBLIC'S AWARENESS, PERCEPTION AND USE OF THE MICHIGAN COOPERATIVE EXTENSION SERVICE

Ву

Darlene Kaye Hanenburg

The application of marketing principles to government agencies and nonprofit organizations is a growing national trend. These organizations recognize that marketing is a tool for better positioning their programs and services.

This study used a telephone interview to determine the awareness, perception and use of the Michigan Cooperative Extension Service in Kent and Ottawa counties. The random digit dialing technique was used to sample the adult population, 18 years old and over.

Forty percent of those surveyed were aware of Extension and 98.5 percent knew about one or more of the four major program areas. 4-H received the greatest recognition by name. Less than 16 percent of the survey respondents had ever contacted an Extension agent or used the services of Extension.

The findings also indicate that the Michigan Cooperative Extension Service is perceived as an agricultural agency designed to assist farmers and rural residents.

#### **ACKNOWLEDGEMENTS**

The author is sincerely indebted to Dr. Maxine Ferris, thesis director, for her patient guidance and counsel during the planning and execution of this study. Special heartfelt thanks is extended to Dr. Ferris for her willingness to step in as the director of committee after Dr. Fred Peabody's retirement, her ready availability and for the many hours she has spent reading manuscripts.

The author also wishes to express her sincere appreciation and heartfelt thanks to Mr. Kirk Heinze who has spent numerous hours reading and editing manuscripts, formulating new ideas and providing guidance, along with temporary diversions and friendship.

The author is grateful to Dr. Fred Peabody for his guidance in designing this student's academic program, and to Dr. Jake Wamhoff for serving on the oral examination committee and providing financial assistance which helped make the completion of this degree possible.

Special appreciation is extended to Susan L. Chritz for the many hours she spent assisting the author with data collection, her feedback on the questionnaire and her words of encouragement.

Many thanks are extended to the Office of the Director of the Michigan Cooperative Extension Service for funding this study. The author also is grateful to the staffs of the Kent and Ottawa County Cooperative Extension Services for their willingness to participate in this study, and to the residents of that area who responded to the telephone survey.

Last, but by no means least, the author is very grateful to her family and many friends for their interest in this study and their words of encouragement throughout this degree program.

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#### Chapter 1

#### INTRODUCTION

Several perceptions about the Cooperative Extension

Service (CES) have developed over the years. These notions

are frequently repeated by special interest groups,

legislators and Extension personnel. The assumptions

include: Everyone has heard of the Cooperative Extension

Service. . . Extension is an agricultural agency that

primarily serves rural and farm residents. . . . Extension

staff members rely heavily on one-to-one contact for reaching

clientele. . . . Clients are pleased with Extension's

services. . . . The agricultural community is the principal

support base for Extension.

All perceptions of Extension are not positive, however.

Negative impressions of the Cooperative Extension Service
have been espoused and, very recently, reiterated. These
negative perceptions include: Extension is an anachronism, a
remnant of a by-gone era. . . . The Extension Service is a
vague government program that lacks "purpose" and is trying
"to be all things to all people." . . . Extension has
deteriorated to the point that it is not much good to
anybody, except maybe 17,000 Extension agents who otherwise
would have to look for work. . . . The Extension Service is a
classic example of bureaucratic survival: a federal program

in search of a mission. . . . County Cooperative Extension Service offices are among Uncle Sam's 10 worst taxpayer rip-offs. 1

Are any of these statements true? Or do they simply reflect long-held stereotypes?

#### Statement of the problem

The role of the Cooperative Extension Service as a publicly supported educational agency within a rapidly changing society has been questioned repeatedly by some farm organizations, Congress, the USDA (United States Department of Agriculture), the Office of Management and Budget (OMB), Government Accounting Office (GAO) and landgrant university administrators. Issues such as appropriate target audiences, efficient program delivery methods, quality of programing and organizational image have been widely discussed.

The chronic questioning has prompted four long-range evaluations of the organization and its programs throughout Extension's 70-plus year history. The most recent study, jointly commissioned by the National Association of State

Donald Lambro, "Uncle Sam's Ten Worst Taxpayer Rip-Offs," Reader's Digest, July 1986, p. 60-64.

<sup>&</sup>lt;sup>2</sup>C. Brice Ratchford, "Extension: Unchanging, But Changing," <u>Journal of Extension</u> 22 (September/October 1984): 8-15.

Universities and Land Grant Colleges (NASULGC) and the USDA, was completed in 1983. Similar evaluations of CES have been conducted in some states.

In 1978, the Extension Committee on Organization and Policy (ECOP) of NASULGC, in cooperation with the U.S. Department of Agriculture, evaluated the consequences of Cooperative Extension educational programs. The Food and Agriculture Act of 1977 mandated the Secretary of Agriculture to furnish Congress with an evaluation of the economic and social consequences of the Extension Services' programs. A major outcome of the national evaluation was an increased awareness of the need to evaluate more completely and effectively the impacts of all Extension programs.

Historically, evaluations of Extension have tended to concentrate on separate program areas, individual projects, specific audiences or the clientele of the agency. Changing economic conditions and population demographics, inflation, and budgetary and staffing concerns, however, have forced CES personnel to critically examine their activities and effectiveness from the public's viewpoint. Past studies have revealed that the public has a limited knowledge of Extension's overall role and programs. Whether the public views CES in the same way as Extension staff and spokespersons has become a critical concern for evaluation efforts.

<sup>&</sup>lt;sup>3</sup>Paul D. Warner and James A. Christenson, <u>The</u>
Cooperative Extension Service: A National Assessment.
(Boulder, Colo.: Westview Press, Inc., 1984), p. 1.

In addition, more and more agencies, institutions and organizations are developing programs similar to Extension's. Continuing and adult education areas that once were almost exclusively the domain of CES have become more attractive to other organizations and institutions. As more institutions become involved in continuing education, funds for educational programs are becoming more difficult to acquire. In a highly competitive environment, Extension increasingly will be called on to justify its programs.

One of the major challenges facing Extension professionals today is creating a better understanding of the Cooperative Extension Service. Extension's community visibility, once taken for granted, is now receiving increased attention. CES staff members are taking a marketing management approach to their programs. The application of marketing principles to a nonprofit organization such as the Cooperative Extension Service is a growing national trend,

<sup>&</sup>lt;sup>4</sup>The increased attention given by Extension staff members to a marketing approach is evidenced by the number of staff members attending marketing seminars and workshops. In February 1985, some 200 CES professionals from across the United States attended the national "Marketing Extension" workshop to explore integration of marketing techniques and principles into program delivery. In October 1985, approximately 75 Michigan CES staff members attended the marketing Extension sessions held during Extension school.

Interest in the public's awareness and satisfaction with the Cooperative Extension Service's programs is further documented by the number of state Extension Services surveying clientele and the public. These state Extension Services, including Vermont, Delaware, Cornell, Oregon and Michigan, are implementing marketing and visibility programs.

but Extension personnel first need to understand "what is" before projecting where the agency "ought to be" in the future.

# Purpose of this study

The purpose of this study was to determine the image of the Michigan Cooperative Extension Service by assessing the awareness and perception of residents in two Michigan counties. More specifically, this study addressed the following research questions:

- 1. How aware are Kent and Ottawa County residents of the Michigan Cooperative Extension Service in general and specifically of the four program areas of agriculture-marketing, home economics, 4-H youth and natural resources-public policy?
- 2. To what extent are Kent and Ottawa County residents making use of the services of the Michigan Cooperative Extension Service?
- 3. What are some reasons for non-participation by Kent and Ottawa County residents in Michigan Cooperative Extension Service educational programs?
- 4. What is the level of Kent and Ottawa County residents' understanding of the purpose or objective of the Michigan Cooperative Extension Service?

- 5. What program areas or subject matter topics ought to receive greater or lesser attention from Cooperative Extension Service staff members?
- 6. How satisfied are Kent and Ottawa County residents with the educational services provided by the Michigan Cooperative Extension Service?
- 7. Do residents of Kent and Ottawa County perceive the Michigan Cooperative Extension Service as an agricultural agency designed to assist farmers and rural residents?

# Background and need for the study

The Smith-Lever Act (1914) outlined the primary mission of the Cooperative Extension Service as the dissemination of useful and practical information regarding agriculture, home economics, and related subjects among the people of the United States not enrolled in land-grant colleges. Extension provides information and educational programs in four main subject areas: agriculture, home economics, 4-H youth programs, and community development. These programs help people better understand the world around them, use their resources more effectively and make wise decisions. CES encourages a broad base of citizen participation in the planning and delivery of educational programs to ensure relevance to the community.

The Extension Service was created with the flexibility to modify its programs in response to new knowledge, changes in its clientele's needs and alterations in the socioeconomic climate. Over the years Extension has added many new programs and reached new clientele, often without eliminating other programs and clientele. To provide services for an expanded audience, it is crucial that Extension personnel know and understand the awareness level or perceptions that potential audiences have toward CES. Extension professionals can do a better job when they know how people perceive their programs. Information supported by data benefits Extension personnel and the groups to which they are accountable.

In an assessment of the U.S. adult population, Warner and Christenson found that Extension struggles with multiple identities. Because of its program diversity, Extension represents different things to different people. It is known as a youth group, an agency that assists farmers, a homemakers' group, a representative of the state university, and the office where you get soil tested. Warner and Christenson found that 87 percent of the population

John G. Gross, "Farmers' Attitudes Toward Extension,"

Journal of Extension 15 (March/April 1977): 19.

Warner and Christenson, <u>The Cooperative Extension</u>
Service: A National Assessment, p. 135.

recognized Extension or its programs. However, only 40 percent of the respondents identified the name of the organization. Warner and Christenson suggest that this latter figure represents a possible underreporting of the true level of Extension awareness. Many clientele do not know the "umbrella" organization name because programs may not carry an organizational identification. However, clientele may identify Extension by other descriptors—agricultural or 4-H agent.

The results of the national assessment indicate that 86 percent of the population in the North Central Region--which includes Michigan--is aware of Extension. However, there is little data or research on the perceptions and awareness levels of the Michigan population. While it is possible to generalize from research gathered elsewhere, some effort to determine the public's awareness and perception of the Michigan Cooperative Extension Service is necessary for designing appropriate messages for selected Michigan audiences. CES administrators need to determine what will be marketed based on the information they receive about their audiences.

<sup>&</sup>lt;sup>7</sup>Ibid., p. 48.

#### Limitations

Survey research is valuable in determining the public's awareness of existing policies, programs or services. In addition, surveys are valuable because they provide information derived directly from a population rather than information based on assumptions or beliefs about that population. The method, however, does not attempt to measure indicators of economic and social changes resulting from CES programs in Kent and Ottawa counties.

This study is limited by the focus on the Michigan Cooperative Extension Service organization as a whole, not on specific program areas. The unique features of each program or activity are not examined. The variability of the Cooperative Extension Service from county to county is also ignored. For example, the Sea Grant program, which can be found in Ottawa County, was not mentioned to participants although the agriculture-marketing, home economics, 4-H youth and natural resources-public policy program areas were specifically mentioned to respondents.

This study also is limited by its scope. It draws only on a sample of the total adult population in Kent and Ottawa counties who have access to residential telephone

<sup>8</sup> Paul D. Reynolds and G.C. Sponaugle, A Guide to Survey Research: How to Plan a Survey, Estimate Costs, and Use a Survey Research Service (Minneapolis, Minn.: University of Minnesota Center for Urban and Regional Affairs, 1982), p. 1.

service. Although characteristics of the combined populations resemble those of the State of Michigan, conclusions cannot be drawn for other specific counties.

However, the findings are more than a reflection of a two-county survey because of the unique demographic profile of the selected counties. The reasons for selecting Kent and Ottawa counties can be found in the "Methodology" chapter of this thesis. Random sampling techniques can yield research data that can be generalized to a larger population within statistically determined margins of error. The results of the study provide information about the awareness and perception of the general population in those two counties and, if carefully interpreted, the results have important implications for the larger population.

#### Definition of terms

The following terms are defined as they are used within the context of this study to assist in the interpretation of the results:

The <u>Cooperative Extension Service</u> (also called Extension, Extension Service, CES and now referred to nationally as the Cooperative Extension System) is an organization, created by the passage of the 1914 Smith-Lever Act, that disseminates practical information from the land-grant colleges, state agricultural experiment stations and the United States

Department of Agriculture to the people of the United States in their communities.

Marketing is the process of identifying specific needs and wants, satisfying these needs by the development of appropriate goods and services, letting people know of their availability, and offering them at appropriate prices, at the right time and place.

Marketing Cooperative Extension is the process of anticipating, researching, defining and evaluating constituent needs and wants and organizing resources at federal, state (land-grant institution) and county levels to deliver functional educational programs in pre-defined subject areas (agriculture, home economics, 4-H youth, community issues and Sea Grant) to target audiences. 9

Market research to determine target audience needs and program evaluation is part of the marketing process.

Marketing an organization or product focuses on the target audience. It is a global process that examines every aspect of an organization including its <u>raison d'etre</u>. It examines the organization from the viewpoint of the user, supporter and the impartial observer.

An <u>organizational image</u> has been defined as the aggregate, or sum, of perceptions, attitudes, ideas, beliefs

<sup>9</sup>Bob Topor, Marketing Cooperative Extension: A
Practical Guide for County Board Members, Coordinators,
Program Leaders, Agents and Volunteers (n.p., Cornell
Cooperative Extension Service, 1983), p. 49.

and feelings people have about it. 10 Although this study does not completely assess Extension's image, image will be defined as the perceived characteristics of an object, person or organization by other individuals. Images are the result of the observer extracting certain characteristics about objects from his perceptions of those objects. 11 Image formation is not based entirely on facts. An image is a stereotype that acts as fact for the image holder. Images are not grounded in fixed events but rather in information and interpretive processes that are constantly changing. 12

Awareness implies knowledge through observation or interpretation of what one hears, sees or feels. Awareness of an agency generally precedes use of its services and support for the agency's existence. Awareness of Extension is one of several indicators which, when combined with perceptions, attitudes, beliefs and feelings, provides a clearer understanding of the image that is being projected to the agency's publics. Awareness provides only a partial measure of the organization's visibility.

Perception determines what is seen and felt. 13

<sup>&</sup>lt;sup>10</sup>Ibid., p. 23.

<sup>11</sup> Grant J. Miller, "Images, Meaning and Organizational Names" (M.A. thesis, Michigan State University, 1973), p. 2.

<sup>12</sup>Warner and Christenson, The Cooperative Extension Service: A National Assessment, p. 44.

<sup>13</sup>E. Jerome McCarthy and William D. Perreault, Jr. Basic Marketing: A Managerial Approach (Homewood, Ill.: Richard D. Irwin, Inc., 1984), p. 203.

Perception implies the individual has a mental grasp of an object, or in this case, an organization. Perception necessarily presupposes awareness; thus, perceptions provide indications not only of visibility, but, more importantly, of credibility. In this study, awareness and perceptions combine to form a partial understanding of the image of the Michigan Cooperative Extension Service.

#### Chapter 2

#### REVIEW OF THE LITERATURE

Extension work grew out of a situation. It has come to be a system of service and education designed to meet the needs of people. What was the situation which gave rise to this unique American development? It was a period of pioneering and change in agriculture and homemaking.

Lincoln D. Kelsey and Cannon C. Hearne Cooperative Extension Work

Human ingenuity, innovative technology and a system of interrelated institutions have made United States farmers the world leaders in food production. From 1900 to 1940, U.S. agricultural productivity grew at less than 1 percent per year with essentially no increase during the first 20 years. After 1940, agricultural productivity grew at more than 6 percent per year. This improvement in productivity has been attributed to industrial mechanization and scientific advances in plant breeding, livestock genetics, fertilizers, pesticides and other chemicals, irrigation technology and improved farm management practices. While change in productivity is usually attributed to technology only, four sources have contributed to changes in agricultural

<sup>14</sup> Lester C. Thurow, "A World-Class Economy: Getting Back into the Ring," <u>Technology Review</u> 88 (August/September 1985): 30.

productivity: technology, human capital, institutions and biophysical capital. Good soil, a favorable climate and hardworking farmers certainly helped agriculture achieve its current productivity level. But underlying those inputs was an elaborate industrial strategy that included mechanization, research and development, and education. 15

Today, the U.S. agricultural industry is increasingly dependent on high technology. To maintain and improve productivity levels, manage the resource base, provide high-quality products and protect the environment requires a constant supply of agricultural expertise.

Several institutions, collectively referred to as the U.S. agricultural research and extension system, have been fundamental forces in helping farmers to achieve today's unparalleled productivity. The agricultural research component of the system, responsible for the scientific and technological advances that have sustained agricultural productivity for decades, includes the United States Department of Agriculture (USDA) and the state agricultural experiment stations (AES) as the primary researchers. Landgrant colleges of agriculture and the Cooperative Extension Service (CES) also play important roles in the agricultural research and extension system, especially in the areas of applied research and integration and distribution of knowledge.

<sup>15&</sup>lt;sub>Ibid</sub>.

The deliberate industrial strategy applied to U.S. agriculture

. . . began with R & D [research and development]. The federal government invested heavily in basic research at state agricultural colleges. The results (new seeds, new procedures) were further refined at experimental state farms, and county agents roamed the countryside explaining the new developments, providing technical aid, and attempting to persuade individual farmers to use the discoveries. While some of the elements of this strategy (the land-grant colleges) were in place before the Great Depression, none achieved a big payoff until coordinated with other ingredients in the 1930s. 16

Together, the United States Department of Agriculture and the land-grant colleges of agriculture coordinate and integrate basic science for agriculture, applied science, technology development, extension and formal college education and scientist training nationwide. This nationwide network exceeds that in any other country in size, capacity and accomplishments, and interacts with private industry and other research and education institutions. Perhaps the most significant characteristic of the U.S. system of agricultural institutions is that it is a system of inextricably linked institutions.

<sup>16</sup> Ibid.

<sup>17</sup> James T. Bonnen, "Technology, Human Capital and Institutions: Three Factors in Search of an Agricultural Research Strategy," a paper prepared for the binational conference on U.S.-Mexico agriculture and rural development, Cocoyoc, Mexico, 1982, p. 23.

## The history of land-grant institutions

Land-grant colleges, such as Michigan State University, were first established as a system by the Morrill Act of 1862. Each state that accepted the benefits of the Morrill Act was obligated to provide

. . . at least one college where the leading objective shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. 18

Since colonial times, Americans have prized education as the provider of individual opportunity and national progress. The Morrill Act and its advocates recognized that "common people"—the industrial classes—could benefit from a college education. The concept of higher education as something accessible to all, rather than limited to an upper class elite, was a new, more practical and egalitarian view of education. In the mid-nineteenth century, the emerging land-grant colleges opened up new higher education opportunities for millions.

The name "land-grant" was derived from the method of funding established under the legislation. The Morrill Act provided 30,000-acre land grants to each state with the number of grants received equal to the state's number of

<sup>&</sup>lt;sup>18</sup>Morrill Act, U.S. Code, vol. 2, secs. 301-305, 307 and 308.

senators and representatives. The land was sold and 10 percent of the resulting revenues were used to purchase a college site, including an experimental farm. The balance was permanently invested in United States stocks and bonds or other safe stocks.

The United States Department of Agriculture was also established by Congress in 1862 under the Organic Act, but it evolved separately from the land-grant colleges until the 1880s. While the colleges struggled to survive and develop a curriculum, the USDA focused almost entirely on developing research capacity and disseminating knowledge. 19

As the land-grant colleges of agriculture struggled to establish themselves as effective educational institutions, it became apparent to institution leaders that there was a need for experimentation and research to build knowledge and create a set of agricultural sciences. The first U.S. agricultural experiment station was established as an independent institution in Connecticut in 1875. In 1886, the House of Representatives Committee on Agriculture noted that 12 states had established agricultural experiment stations, attached to the agricultural colleges in all

<sup>19</sup> Bonnen, "Technology, Human Capital and Institutions: Three Factors in Search of an Agricultural Research Strategy," p. 7.

cases except Connecticut. 20 The Hatch Act (1887) formally established agricultural experiment stations to aid agricultural scientists and provided federal funding.

# The history of Cooperative Extension

Educational efforts of the land-grant colleges of agriculture quickly took an outreaching form and many approaches were pioneered between 1870 and 1900 in an attempt to reach farmers. Lecture series, winter short courses and farmers' institutes were developed.

The extension work of the agricultural colleges was an outgrowth of the addresses delivered at meetings of agricultural societies, at fairs, and at other gatherings of farmers during all the nineteenth century. From the beginning these addresses included some on the more technical phases of agriculture and its relations to the sciences, delivered by college teachers or persons having special knowledge of the subjects they treated. In 1861 the Michigan Legislature passed an act which contained a provision that "the professors of the college may give lectures to farmers away from the college."

The prevailing philosophy that knowledge should be available for practical use required that it be transmitted to those who could use it. Interest in adult education, or

<sup>20</sup>Willard W. Cochrane, <u>The Development of American Agriculture: A Historical Analysis</u> (Minneapolis: University of Minnesota Press, 1979), p. 244.

<sup>21</sup> Alfred Charles True, A History of Agricultural Education in the United States, 1785-1925. United States Department of Agriculture Miscellaneous Publication No. 36. (Washington, D.C.: United States Government Printing Office, 1929), p. 276.

extension work, developed rapidly in the early 1900s. In 1905, the Association of Agricultural Colleges (known today as the National Association of State Universities and Land Grant Colleges) established a standing committee on extension work. The first report of that committee defined extension education as follows:

Extension teaching in agriculture embraces those forms of instruction, in subjects having to do with improved methods of agricultural production and with the general welfare of the rural population, that are offered to people not enrolled as resident pupils in educational institutions. <sup>22</sup>

The association committee's report in 1907 showed that 39 agricultural colleges were doing extension work. Finally, the Cooperative Extension Service was created by the 1914 Smith-Lever Act.

The genius of the land-grant system is the integration of all three of these components—formal college training, research and extension—in such a way that they reinforce each other. The blended roles of teaching, research and public service—what has been called the "trilogy of American ingenuity"—is the fundamental mission of land-grant universities.

<sup>&</sup>lt;sup>22</sup>Ibid., p. 278.

<sup>23</sup> James H. Anderson, "The Integration of Teaching, Research and Extension in a Global Setting," in <u>Issues Facing Agriculture and Implications for Land Grant Colleges of Agriculture</u>, proceedings of a workshop for deans and directors in the North Central Region, Chicago, Ill., 9 October 1985, p. 57.

The Hatch and Smith-Lever acts linked the U.S. Department of Agriculture and the land-grant colleges in a loose but single administrative structure. With the passage of the Smith-Lever Act, the USDA, agricultural experiment stations and land-grant institutions were linked to provide one educational system with the purpose of successfully communicating relevant research findings to people across the United States.

Cooperative Extension was placed under the administration of the land-grant colleges because it is an educational program. Extension was connected to the federal government by means of state acceptance of the Smith-Lever Act, the requirement that states match federal money to support the program, and by the Memorandum of Understanding between the Secretary of Agriculture and the land-grant institutions chosen by state legislatures to serve as the parent institutions for program administration. The memorandum has served as the foundation on which extension work has been done since the passage of the Smith-Lever Act. Under the memorandum, the state land-grant institution must organize and maintain a definite and distinct administrative division for the management and conduct of extension work in agriculture and home economics.

<sup>&</sup>lt;sup>24</sup>USDA-NASULGC Joint Committee. A People and a Spirit (Fort Collins, Colo.: Colorado State University, 1968), p. 18-19.

The name "Cooperative Extension Service" was derived from the then unique plan for sharing costs by federal, state and county governments which requires dollar-for-dollar matching of federal and state funds and contributions of local funds in amounts that may vary among the states and counties. Financial support from counties was not required but evolved as local people began to support the Cooperative Extension Service and see it as their own.

The Smith-Lever Act outlined the primary mission of Cooperative Extension as the dissemination of useful and practical information regarding agriculture, home economics and related subjects among the people of the United States not enrolled in land-grant colleges. The congressional charge to Cooperative Extension, through the Smith-Lever Act as amended, is extremely broad. Extension's mission is education. The legislation specifies audiences, general subject areas and educational approaches for Extension.

More specifically, the United States Code 26 and the Food Security Act of 1985 27 specify that

<sup>25</sup> Joseph L. Matthews, "The Cooperative Extension Service," in Handbook of Adult Education in the United States, ed. Malcolm S. Knowles (Washington, D.C.: Adult Education Association of the U.S.A., 1960), p. 218.

<sup>26</sup> Smith-Lever Act, U.S. Code, vol. 2, secs. 341-348 (1914).

<sup>27</sup>U.S., Congress, House, Food Security Act of 1985,
Pub. L. 99-198, 99th Cong., 1st sess., 1985, H.R. 2100,
p. 99 Stat. 1557.

Cooperative agricultural extension work shall consist of the development of practical applications of research knowledge and giving of instruction and practical demonstrations of existing or improved practices or technologies in agriculture, uses of solar energy with respect to agriculture, home economics, and rural energy and subjects relating thereto to persons not attending or resident in said colleges in the several communities, and imparting information on said subjects through demonstrations, publications, and otherwise and for the necessary printing and distribution of information in connection with the foregoing; . . .

The Cooperative Extension Service, a unique achievement in American education, is the world's largest, publicly supported, informal adult education and development organization. It is known as an agency for change and a catalyst for individual and group action. Today, the Cooperative Extension Service system includes the Extension Service, USDA; the 1862 land-grant universities in 50 states, Puerto Rico, the Virgin Islands, Guam, American Samoa, Micronesia, and the District of Columbia plus 16 1890<sup>29</sup> land-grant universities and Tuskegee University; and more

<sup>&</sup>lt;sup>28</sup>Edgar J. Boone, "The Cooperative Extension Service," in <u>Handbook of Adult Education</u>, eds. Robert M. Smith, George F. Aker and James R. Kidd (New York: The MacMillan Company, 1970), p. 265.

<sup>&</sup>lt;sup>29</sup>A second Morrill Act, passed in 1890, provided for the establishment of additional land-grant colleges in several states and for annual federal appropriations, based on a standard formula. A key provision of the second Morrill Act was the requirement that the land-grant institutions be opened to both white and black students or that "separate, but equal" facilities be established. These institutions, known as the black land-grant colleges for many years, were established in 17 southern states.

than 3,150 county offices. In addition, in 1983, approximately 2.9 million individuals worked with Extension as volunteers—that is approximately one out of every 80 people in the United States. 30

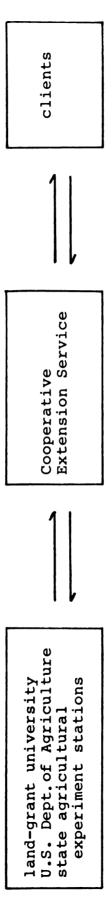
Extension has long been recognized as a link between the producers and consumers of scientific knowledge. In its linking role, Extension gathers research-based knowledge from the U.S. Department of Agriculture and state agricultural experiment stations, derives practical information from it, and transmits it in an understandable form to potential users. The system is characterized by two-way communication between those who work for Extension and those who use it. CES provides feedback on needs expressed by people to state and federal research scientists. See Figure 1.

It has been the philosophy and policy of the Cooperative Extension to be a problem-oriented organization. People's problems and needs are the bases of Extension educational

Partners in Action, a report from the national study of the implications of volunteerism in the Cooperative Extension Service (Madison, Wis.: University of Wisconsin-Madison, 1984), p. 1.

<sup>31</sup> Njoku E. Awa and L. VanCrowder, Jr., "How Extension Stacks Up," <u>Journal of Extension</u> 16 (March/April 1978): 20.

<sup>&</sup>lt;sup>32</sup>Paul E. Kindinger, "An Analysis of Communications Patterns and Technology for State Extension Specialists--A Marketing Approach" (M.S. thesis, Michigan State University, 1971), p. 1.



Bridging the knowledge gap between producers and users of technical agriculture information. Figure 1.

programs. Although it was originally created to assist farmers and rural residents, it would be a mistake to regard the Cooperative Extension Service as an organization that continues to meet the needs of rural people only.

During the 1950s and 1960s, government agencies and congressional hearings documented that some 5 million

American families were living in poverty in both rural and urban areas. Their need for adequate nutrition and balanced diets led to the development of several Extension nutrition education projects to reach more families in poverty. In November, 1968, Congress began funding the nutrition program and designated the Extension Service and the state Extension Services to conduct the nationwide educational program known as the Expanded Food and Nutrition Education Program (EFNEP).

Today, much of Extension's programing no longer belongs exclusively on the farm page of the local newspaper. In the last 10 to 15 years, Extension has greatly extended the scope of its responsibilities beyond agriculture. CES provides educational assistance on a wide variety of subjects to voluntary participants. Extension provides unbiased information and educational programs in four main subject areas: agriculture, home economics, 4-H youth programs and community development. Extension's program responsibilities also include: EFNEP, urban 4-H and youth programs, consumer education, family relations and community improvement, small farmer programs and natural resource conservation.

Today, more Extension staff members are using the mass media to communicate information to urban dwellers and are working closely with agencies and organizations involved in developing and enhancing human resources. 33

Teaching people "how" to think, not "what" to think, is a basic philosophy of Extension education. Extension programs help people better understand the world around them, use their resources more effectively and make wise decisions. CES encourages a broad base of citizen participation in the planning and delivery of educational programs to ensure relevance to the community.

During a symposium on Extension education research needs, Dr. Paul D. Warner of the University of Kentucky posed the question, "Can an organization started in 1914 as a way to get farmers to adopt improved agricultural practices continue to be relevant in a rapidly changing society?" 34

The Cooperative Extension Service and the agricultural experiment stations have been credited as major influences on the rapid increase in efficiency of U.S. commercial agriculture. Part of the reason that the Cooperative

<sup>33</sup>Warren Prawl, Roger Medlin and John Gross, Adult and Continuing Education Through the Cooperative Extension Service (Columbia, Mo.: University Printing Services, 1984), p. 28.

<sup>34</sup> Paul D. Warner, "The Cooperative Extension Service: A National Assessment," paper presented at the Symposium on Research Needs for Extension Education, Columbus, Ohio, 23 May 1985.

Extension Service has been so successful is because of the system's capacity to modify its programs to meet the needs of people in a rapidly changing society. Paradoxically, Extension's successes have made it the target of criticism. Some critics would argue that the agricultural research and extension system has done an excellent job, that it has made American farmers self-sufficient and that they no longer need research and Extension. What the critics ignore, however, is the fact that a constant stream of new knowledge is needed if farmers are to maintain or improve their position and that new farm problems require on-going attention. And, ironically, while some organizational and national leaders have admonished the CES to broaden its programs, various traditional support groups and clientele have been critical of Extension for doing exactly that.

# Marketing and public relations for Extension

It appears Extension has found itself pulled in two directions—to reach out to groups of individuals with specialized needs and, simultaneously, to continue to serve traditional farm and rural audiences. In order for CES staff

<sup>35</sup>USDA-NASULGC Joint Committee, A People and a Spirit, p. 24.

<sup>&</sup>lt;sup>36</sup>Gale L. VandeBerg, <u>The Cooperative Extension Service</u> in <u>Transition</u>. A Report of the National Extension Committee on Organization and Policy (Madison, Wis.: The University of Wisconsin--Extension, 1979), p. 7.

members to provide services to meet the needs of a rapidly changing society, knowing and understanding the perceptions and awareness that current and potential audiences have of the Cooperative Extension Service is critical. Marketing is a tool for better positioning Extension programs and services.

Many people confuse marketing with public relations, advertising, fund-raising and other media activities. Although these elements may be incorporated into a marketing strategy, they are not marketing. Kotler 37 defines marketing as

. . . the analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchanges of value with target markets for the purpose of achieving organizational objectives. It relies heavily on designing the organization's offering in terms of the target markets' needs and desires, and on using effective pricing, communication, and distribution to inform, motivate, and service the markets.

Kratchenberg<sup>38</sup> also provides a usable definition of marketing for nonprofit organizations:

Marketing deals with the concept of uncovering specific needs, satisfying these needs by the development of appropriate goods and services, letting people know of their availability, and offering them at appropriate prices, at the right time and place.

<sup>37</sup> Philip Kotler, Marketing for Nonprofit Organizations, 2nd ed. (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1982), p. 6.

<sup>38</sup>A.R. Kratchenberg, "Bringing the Concept of Marketing to Higher Education," <u>Journal of Higher Education</u> 43 (May 1972): 380.

And, as Drucker<sup>39</sup> so clearly states,

Marketing is so basic that it cannot be considered a separate function . . It is the whole business seen from the point of view of its final result, that is, from the customer's point of view.

The marketing concept replaces and reverses the logic of the selling concept. The two approaches are illustrated in Figure 2.

The selling concept, as defined by Kotler, assumes consumers will not buy or will not buy enough of the organization's products unless their interest is stimulated. The selling concept focuses on existing products and attempts to fit consumer needs and wants to those products. The primary focus of marketing, however, is the consumer's needs with products and programs designed to meet those needs—just the opposite of the selling concept.

The above principles are applied in profit and non-profit, public and private organizations. That is, the marketing principles applied to nonprofit organizations are the same as those for profit-motivated businesses. Marketing the Cooperative Extension Service, then, is the process of anticipating, researching, defining and evaluating constituent needs and wants and organizing resources at the federal, state and county levels to deliver practical

Practices (New York: Harper & Row, Publishers, Inc., 1974),
p. 63.

END	profits through customer satisfaction		profits through sales volume	
	integrated pr marketing cu	A marketing concept approach	selling and proprosess proprosess	A selling concept approach
	customer needs		products	

The marketing concept vs. the selling concept  $^{40}$ Figure 2.

Prentice-Hall, 40Philip Kotler, Principles of Marketing (Englewood Cliffs, N.J.: Inc., 1980), p. 23. educational programs in prescribed subject areas to target audiences. Educational programs must be developed and implemented based on identifiable needs.

Central to the marketing concept is an understanding of exchange. According to Kotler, marketing exists when people decide to satisfy needs and wants through transactions. 41 Parties to the exchange must place higher value on what is being acquired than what is being given away. Consequently, an understanding of what the potential client values is crucial, along with an understanding of what they are willing to "pay."

Exchanges in nonprofit organization marketing frequently are more subtle than the money-product exchange of the private business sector. Products are harder to define and the costs sometimes involve no money. An understanding of the exchange relationship and the needs of consumers and other constituencies permits the organization to design its offerings with the client's needs in mind. 42

Nonprofit organizations, however, have four major characteristics that merit special attention when applying marketing principles: multiple publics, multiple objectives, services rather than physical goods and public scrutiny.

<sup>&</sup>lt;sup>41</sup>Philip Kotler, <u>Principles of Marketing</u> (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1980), p. 13.

<sup>42</sup> Sheila A. Brown, "Marketing Extension Programs," in Extension Handbook, ed. Donald J. Blackburn (Guelph, Ontario, Canada: University of Guelph, 1984), p. 142.

The Cooperative Extension Service is characterized by all four major factors. These characteristics require consideration when applying marketing principles because they can pose problems. Until recently, marketing has focused on how to market manufactured goods, especially consumer packaged products. Most public and nonprofit organizations, however, are concerned with services.

In addition, the mission of nonbusiness organizations may require that the organization take a long-term view rather than cater to current consumer preferences. However, conflicts could arise between fulfilling the long-term institutional mission and satisfying short-term consumer preferences. For example, a university attempts to transmit knowledge, skills and ways of reasoning that will have an extended value to students. It does not try to amuse and inspire students for a given course or length of time.

According to Lovelock and Weinberg, nonprofit organizations tend to attract more public attention than do private firms of comparable size. With people's desire for openness in government and interest in publicly funded activities, coupled with a desire to prevent legislated power abuses, public agencies are subject to ongoing public scrutiny.

<sup>43</sup>Christopher H. Lovelock and Charles B. Weinberg, Marketing for Public and Nonprofit Managers (New York: John Wiley & Sons, Inc., 1984), p. 32.

Furthermore, an organization, such as the Cooperative Extension Service, that has a multiplicity of clients must distinguish these customer groups and their relative importance.

An important component of the marketing approach is market segmentation. Market segmentation is the subdividing of a market into distinct subsets of customers, where any subset may conceivably by selected as a market target to be reached with a distinct marketing mix. 44 Segmentation serves two purposes: market definition and target marketing. Market definition assists an organization with the identification and selection of segments within the total population that represent appropriate target audiences. Through target marketing, marketing activities are effectively directed at the chosen segments. Marketing, then, includes the selection of target markets rather than a quixotic attempt to serve every market and be all things to all people.

Public agencies, such as the Cooperative Extension

Service, which have a broad mandate to serve the general

population most frequently encounter the problem of having a

mission that is too broad.

For the Cooperative Extension Service, then, market segmentation becomes audience segmentation. That is, the

Planning and Control, 3rd ed. (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1976), p. 144.

overall population is divided into homogeneous subsets of target audiences in order to better formulate tailored messages and programs to meet specific needs. It would be extremely difficult for Extension to customize its offerings to meet everyone's needs. However, there are enough categories of common interest for CES to segment the market for its educational programs. This would allow Cooperative Extension to focus more directly on consumers' felt needs. 45 During the on-going program planning and in periodic program reviews, Extension personnel identify people's needs; subsequently, programs are developed and offered in response to those concerns.

The marketing concept, in conjunction with the concept of market segmentation, can provide a truly clientele oriented, clientele satisfying system for the Cooperative Extension Service.

According to Kotler, organizations typically become aware of marketing when their market undergoes a change.

Organization staff members are suddenly concerned when program participants, buyers, members, funds or other resources become more difficult to attract. The Cooperative Extension Service is one such organization.

<sup>45</sup> Kindinger, "An Analysis of Communications Patterns and Technology for State Extension Specialists--A Marketing Approach," p. 5.

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The explosion of information and its technology is impacting Cooperative Extension. An amazing revolution in people's abilities to organize, store, retrieve and transmit information is occurring. Microcomputers, cable television and satellite communications are changing people's expectations for individualized delivery of quality information and, thus, are influencing the way adults learn. Related to the advances in technology and information is the increasing competition among educators and information providers for the adult learner's time. Extension is facing increased competition from other state agencies, libraries, school districts, mass media and many others.

For example, the community colleges have evolved and have recently expanded their adult education programs.

Today's libraries are dynamic learning centers with modern educational resources along with the traditional printed materials. Private enterprises offer conferences, seminars and information distribution plus consulting services, which are frequently combined with computer services. Public and quasi-public groups provide educational programs in agricultural production and marketing, nutrition, child development, financial management, community and economic development, and many more.

Some government programs fail because the appropriate target audiences do not receive relevant information about

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them. 46 Some policymakers hold the elitist view that their responsibility is just to provide programs. They do not concern themselves with the dissemination of information or the delivery of those programs to the various relevant publics.

An organization must continually strive to communicate its identity to the world around it, because no organization, public or private, can exist independently of its macroenvironment. As the size and complexity of society grows, the need for a public agency to communicate with its publics is more crucial than ever before. <sup>47</sup> Administrators who have been concerned about their organization's public image and spend money to improve it have been criticized. However, administrators who do not create an awareness of their agencies may face drastic budget cuts or be eliminated.

Organizations that move toward a marketing orientation take on three characteristics that are vital to their survival and effectiveness. They become more responsive, adaptive and entrepreneurial. The organization that wants

<sup>46</sup> Seymour H. Fine, "Strategic Planning in the Marketing of a Government Program," in Cases and Readings for Marketing for Nonprofit Organizations, eds. Philip Kotler, O.C. Ferrell and Charles Lamb (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1983), p. 61.

<sup>47</sup>Warner and Christenson, The Cooperative Extension Service: A National Assessment, p. 46.

<sup>48</sup> Kotler, Marketing for Nonprofit Organizations, p. 26.

to be responsive must decide to whom and to what it will be responsive. According to Kotler, 49

Responsive organizations have a strong interest in how their publics see the organization and its products and services. For it is the organization's image, not necessarily its reality, that people respond to . . . The same organization will be viewed as responsive by some groups and unresponsive by other groups. Therefore, the organization has a vital interest in learning about its "image" in the marketplace and making sure that these images facilitate rather than impede the delivery of satisfaction.

While the marketing process examines the organization from the viewpoint of the user, supporter and the impartial observer, it also stimulates and creates an awareness of the organization. Awareness implies knowledge through observation or interpretation of what an individual hears, sees or feels. Awareness of an agency generally precedes use of its services and support for the agency's existence. Awareness of Extension, when combined with perceptions, attitudes, beliefs and feelings, provides a clearer understanding of the image that is being projected to the organization's publics. Awareness provides only a partial measure of the organization's visibility. See the "Discussion and Conclusions" chapter for a discussion of image.

<sup>&</sup>lt;sup>49</sup>Ibid., p. 56.

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### Studies assessing Extension awareness and perceptions

In response to changing needs and technological developments, CES periodically conducts studies of its roles and responsibilities. In 1982, the National Association of State Universities and Land Grant Colleges (NASULGC) and the U.S. Department of Agriculture jointly commissioned and implemented a major study of the Cooperative Extension Service. The fourth study of its kind in Extension's 70-plus year history, it was conducted for several reasons, including:

- Legislative bodies, clientele groups and two federal government agencies (Government Accounting Office and the Office of Management and Budget) were questioning whether CES had adjusted its programs to societal and demographic changes and the resulting needs;
- 2. The same groups were questioning whether Extension had a clear mission and priorities; and
- 3. Legislative bodies and the CES legal partners were asking for clarification of roles and responsibilities.

The study, which surveyed Extension staff members and public leaders, revealed that CES should place first priority on agricultural production and marketing; second priority on 4-H youth programs; third priority on home economics, nutrition and family economics; and fourth priority on community and economic development and natural and

environmental resources.<sup>50</sup> CES personnel from the various program areas tended to rank their own program area as the area to receive highest priority. Most staff, however, ranked agriculture as next highest in priority, after their own program area. This finding suggests a general agreement among Extension staff members that agriculture should receive high priority within the Cooperative Extension Service.

It is interesting to note that county Extension professionals consistently ranked 4-H youth programs as second highest in priority, followed by home economics, natural and environmental resources, and community and economic development. State Extension personnel, however, ranked the program areas in the following order: agriculture; home economics; natural and environmental resources and 4-H youth (tied); and community and economic development.

The public leaders who were surveyed consistently ranked agriculture as the highest priority program area, with 4-H youth and home economics competing for second and third priority. Respondents who were not familiar with Extension, however, ranked 4-H youth programs as the lowest priority program area.

<sup>50</sup> Laverne B. Forest and Karen R. Eriksson, Extension in the '80s Surveys: Major Findings and Implications (Madison, Wis.: Program Development and Evaluation, Cooperative Extension Service, University of Wisconsin-Extension, 1984), p. 12.

Extension staff members and public leaders agreed that CES programs should reflect locally determined needs more than state level determined needs and that nationally determined needs should be deemphasized. Both groups also agreed that Extension should extend knowledge from the total land-grant university. Comments made by respondents indicated that while subject matter from the total land-grant university is important, care is needed to select needed programs within each program area. One Nebraska staff member commented, "We need to more clearly identify and target audiences. We should not be all things to all people." 51

The respondents also said CES must inform all its publics more on program impact and budget management. Both Extension staff and public leaders felt that informing people at the county level was the most important, but that informing governors, state legislators, members of Congress and the executive branch, and the general public was also important. Four-H youth program staff members indicated the greatest need to inform the general public. Comments identified numerous reasons for informing the different publics, including:

- 1. Awareness of CES impacts can lead to more funding;
- 2. Informing people can lead to a better understanding of goals and methods;

<sup>&</sup>lt;sup>51</sup>Ibid., p. 19.

- 3. CES can attract clientele with increased visibility; and
- 4. Awareness is needed more at the state and national levels.

In 1958, when Cornett started his study of public concepts related to the role of the Jackson County (Michigan) Cooperative Extension Service, it was felt that the Extension program might not be as well known or used as generally assumed, and for that reason support might be weakened by the changing agriculture industry. He surveyed the entire Jackson County memberships of the Jackson County Artificial Breeders Association, the Jackson Rotary, Kiwanis, and Business and Professional Women's clubs.

What Cornett found was that most respondents were aware of a program in agricultural extension. The study also revealed some indications of misunderstanding of the Cooperative Extension Service. Respondents reported that they had not heard about CES, yet had used Extension-distributed information or family members had participated in 4-H. Cornett found that better identification of Extension activities with the organization was needed. Sometimes the name was not associated with the programs conducted.

Cornett also reported that "Both farm and city people seem to feel that Extension work is basically a rural

<sup>&</sup>lt;sup>52</sup>Elgin M. Cornett, "A Study of Public Concepts Related to the Role of the Cooperative Extension Service" (M.S. thesis, Michigan State University, 1958), p. 67.

program . . . " 53 The respondents indicated that the Cooperative Extension Service has some indirect value for city people, but it is primarily an agency to handle technical matters for farmers.

Cornett continues,

Public concepts of the role of Extension have been built over many years and they are not changing very fast. Extension leaders see agriculture as a shrinking segment of a tightly integrated economy and they see the Extension Service in a rapidly changing role. Public opinion may see the picture in due time, but so far the lag in understanding is holding to older standards.

It is the feeling of many Extension leaders, that Extension is being forced into broader fields of activity by changing economic and social conditions. At the same time public concepts of its role do not seem to be changing at the same pace and this may cause trouble spots to appear in tax competition for support.

In a wide public service program, the Extension Service has a disadvantage, since it is known as an agricultural or rural service. It also runs the risk of losing support from farm oriented factions faster than it will gain support from others. 54

 ${\sf Cosner}^{\sf 55}$  studied the perception of Oklahoma residents toward the Cooperative Extension function of the Oklahoma

<sup>&</sup>lt;sup>53</sup>Ibid., p. 71.

<sup>&</sup>lt;sup>54</sup>Ibid., p. 72.

<sup>55</sup>Barney L. Cosner, C. Wesley Holley, Thomas E. Randle, Eddy Finley and James P. Key, "The Awareness of the General Public of Oklahoma of the Instruction, Extension and Research Components of the Division of Agriculture at Oklahoma State University," an Oklahoma State University research project report (Stillwater, Okla.: Oklahoma State University, 1980), p. 5.

State University Division of Agriculture. In a telephone survey of 14 counties, Cosner found that approximately 79 percent of the respondents were aware of having an Extension office in their county. In the specific program areas of Extension, slightly more than 47 percent of the respondents or a member of their family had been involved with the 4-H program, approximately 25 percent were involved with Extension homemakers clubs and 14 percent were involved with the agricultural or related programs.

Cosner concluded that there was a high level of awareness of the Cooperative Extension Service among the Oklahoma general public. Residents with high awareness of Extension had the following characteristics: a household income of \$10,000 to \$20,000; 35 to 49 years old; had agriculture or agriculture-related occupations; high school graduate; American Indian; and female.

In a national assessment of the general public's perceptions of CES, Warner and Christenson found that Extension struggles with multiple identities. Extension represents different things to different people because of its program diversity. Warner and Christenson also found that 87 percent of the population recognized Extension or its programs. 56

<sup>56</sup>Warner and Christenson, The Cooperative Extension Service: A National Assessment, p. 48.

However, only 40 percent of the respondents identified the name of the organization.

Recognition of program area names (agriculture, 4-H, home economics, and community development) was greater than recognition of the organizational name. The 4-H program, the most widely identified, was recognized by 77 percent of the respondents. The agriculture program had the second highest level of awareness (52 percent).

Warner and Christenson also found that 23 percent of the persons questioned had personally used the Extension Service or contacted an Extension agent sometime during their life. Sixty-four percent of those users live in metropolitan counties (in a standard metropolitan statistical area). At the same time, Extension serves a larger proportion of nonmetro residents than it does urban residents.

Jennings, in a study of Arkansas residents' perception of the Arkansas Cooperative Extension Service, concluded that Arkansas residents seem to have a fairly high level of awareness of Extension. The study, which involved five Arkansas counties, indicated that 63 percent of the respondents reported that they had heard of the Arkansas Cooperative Extension Service. Almost 68 percent of the

<sup>&</sup>lt;sup>57</sup>Ibid., p. 59.

respondents indicated that they were aware of the county Extension office. 58

She concluded from the findings of the study that

Extension personnel need to recognize that the most common reason for non-participation in Extension educational programs is that people are not aware of the services offered by CES.

This finding was borne out by an earlier study of Indiana families. The study surveyed families' perceived educational needs, educational program priorities and program delivery preferences related to home economics programs. Three reasons for attending Extension-sponsored programs accounted for more than 60 percent of the total number of responses. The three most common reasons were:

- 1. I like the topics of the programs.
- 2. I feel a need for better information about personal and family life.
- 3. I'm a member of a Homemakers Club.

The reasons reported for not attending were even more clustered. Three of the statements accounted for almost 75 percent of the total:

1. I don't know when and where Extension programs are offered in my community (28.3 percent).

<sup>&</sup>lt;sup>58</sup>Jo Lynn Jennings, "Arkansas Residents' Perception of the Arkansas Cooperative Extension Service" (Ed.D. dissertation, University of Arkansas, 1983), p. 96-97.

<sup>&</sup>lt;sup>59</sup>Raymond T. Coward, "Greater Awareness--Extension's Key to Program Success," <u>Journal of Extension</u> 16 (September/October 1978): 11-17.

- 2. I've never seen or heard any publicity on what type of programs are offered by Extension (26.7 percent).
- 3. I don't understand what Extension is all about (19.1 percent).

From the Arkansas and Indiana studies, it appears that it was not that respondents knew about Extension, understood its purpose, and then rejected the programs. Rather, the respondents simply did not know what Extension was or what services it offered.

Given the nature of extension education and its great dependency on the involvement and support of people at all levels, it is apparent that Extension's effectiveness and success will be largely determined by its ability to effectively communicate its programs to the public. Past studies have revealed that the public is aware of the Cooperative Extension Service and its programs but has a limited knowledge of Extension's role and programs.

Assessment of the public's awareness, perceptions and image of Extension moves the organization closer to a marketing orientation.

# Chapter 3

#### **METHODOLOGY**

Several recent studies have surveyed opinions about the Cooperative Extension Service (CES) and its programs. These studies have been conducted in several states, including New York, Indiana, Oklahoma, Ohio, Kentucky, Illinois and Iowa. The majority of these studies have looked at one program area only, one specific audience or the clientele of the agency. Historically, evaluations of Extension have tended to concentrate on separate program areas, individual projects, specific audiences or the clientele of the agency. 60

This study, however, will look at the whole Extension organization and its publics. All constituents affected by Extension's programs, either directly as program participants or indirectly as taxpayers, are in a position to evaluate Extension. Because public agencies, such as Extension, depend upon the legislative process for funding support, the survival of the organization can be determined as much by those who are unaware of the organization as those who are aware. Administrators and CES information specialists should be concerned with the public's perception of the

<sup>60</sup>Warner and Christenson, The Cooperative Extension Service: A National Assessment, p. 1.

<sup>61</sup> Ibid., p. 35.

Extension organization in order to better position the agency in the marketplace. A critical concern is whether the public views CES in the same way as Extension staff members and spokespersons. Misconceptions in the perception of reality lead to evaluation designs that confirm inaccurate assumptions 62 and poorly marketed and used programs.

During its 70-plus year history, the Cooperative Extension Service has responded to congressional charges and mandates, changing socio-economic conditions and clientele needs, and new knowledge. To continue as a dynamic, audience-based agency, Extension will need to monitor its clientele's and the public's needs, awareness and perceptions of Cooperative Extension.

Almost three decades have lapsed since the last Michigan study of the public's awareness and perceptions of Extension. 63 While it is possible to generalize from research gathered elsewhere, some effort to determine the public's awareness and perceptions of the Michigan Cooperative Extension Service is necessary for designing appropriate messages for selected Michigan audiences. Information from this study, then, can

<sup>62</sup> Paul D. Warner and James A. Christenson, "Looking Beyond Extension Stereotypes," <u>Journal of Extension</u> 21 (September/October 1983): 28.

<sup>&</sup>lt;sup>63</sup>To the author's knowledge, Elgin M. Cornett's study, cited earlier, was the most recent assessment of the public's awareness of the Michigan Cooperative Extension Service. His study was conducted in 1958.

serve as a foundation for a statewide assessment of the public's awareness and perceptions of Extension.

### Assumptions

The focus of this study and its design were based on the following assumptions:

- People from all socioeconomic levels in the Grand Rapids standard metropolitan statistical area (Kent and Ottawa counties) had access to telephone service.
- People who had telephones were representative of the population in Kent and Ottawa counties.
- 3. The responses made by the survey participants were accurate and sincere.
- 4. The survey instrument adequately assessed the respondents' perception of the Michigan Cooperative Extension Service.

### Hypotheses

Based on the review of literature and the results of the national assessment of the Cooperative Extension Service conducted by Warner and Christenson, the following hypotheses were developed:

- 4-H youth programs will be the most widely recognized program area throughout the total population.
- 2. The Michigan Cooperative Extension Service has a pluralistic identity instead of a single identity. More respondents will recognize each of the four program areas (agriculture-marketing, 4-H youth, natural resources-public policy, and home economics) than the "umbrella" organizational name (Michigan Cooperative Extension Service).
- 3. Both rural and urban respondents view the Michigan Cooperative Extension Service primarily as an agricultural agency designed to help farmers and rural residents.
- 4. The public's perception of the Michigan Cooperative Extension Service is related to an individual's experience(s) with the organization.

#### Survey instrument design

A variety of techniques can be used to secure information from and about a population. A telephone interview was selected as the vehicle for this survey, rather than a mail questionnaire or personal interview, because it offered the following advantages: Rapid completion of the entire survey process, high response rate

when surveying the general population, opportunity for frequent callbacks at a low cost and contact with a broad accessible population.

The Michigan Cooperative Extension Service (MCES) awareness survey was patterned after the national assessment of Extension's image conducted by The University of Kentucky Survey Research Center in 1982. 64 The 59-question MCES survey instrument included 41 questions from the national assessment. The questions were modified to correspond with the programs of the Michigan Cooperative Extension Service. In addition, six questions from a Purdue University study 65 were also incorporated into the MCES questionnaire.

Close-ended questions with ordered and unordered response choices were chosen for this questionnaire because they were less demanding on respondents and provided greater specificity of response. This question format also offered interviewing ease, when asking a series of attitude and belief questions, and data coding ease. The questions were designed to assess the public's awareness and knowledge of the Michigan Cooperative Extension Service.

The cover sheet and survey instrument were reviewed by Dr. Fred Peabody, Dr. Maxine Ferris and Mr. Kirk Heinze.

<sup>64</sup>Warner and Christenson, The Cooperative Extension Service: A National Assessment.

<sup>65</sup>Coward, "Greater Awareness--Extension's Key to Program Success," p. 11-17.

Both forms were also informally pretested on members of the Lansing and Grand Rapids area populations. The instrument and cover sheet were modified based on feedback. A copy of the cover sheet and survey instrument can be found in Appendix A.

The respondent's county of residence was established at the beginning of each successful contact. Since only residents of Kent and Ottawa counties were to be interviewed, calls reaching residences outside of either county were discontinued after confirming the telephone number and county. The county and sex of each respondent were recorded on the cover sheet.

The first nine questions assessed the respondent's awareness of and participation in Extension-sponsored programs. Respondents were asked questions 10 through 45 based upon their responses to the first nine items.

Questions 1 through 5 were designed to determine the number of respondents who had heard of the Cooperative Extension Service or one of its four program areas. Explanations of the types of programs offered through each program area were included in case the respondent sounded uncertain.

Questions 6 and 7 asked respondents if they had participated in 4-H youth programs either as a member or volunteer leader.

Questions 8 and 9 attempted to determine if the respondent or a member of the respondent's household had contacted an Extension agent or used the services of Extension.

Questions 10 through 13 attempted to identify which program areas a respondent may have used if he/she had contacted an Extension agent. These questions were included because a respondent's organizational image of Extension results from his/her perceptions of the organization. The individual's experience with Extension determines what is perceived.

Questions 14 through 18 tried to determine what media a respondent used to obtain information from Extension.

Questions 19 through 24 asked the respondent to identify why he/she had not attended an Extension-sponsored meeting or workshop. These questions were included to determine if the respondent had heard about Extension and its programs or if he/she rejected the programs perhaps because the subject matter was not useful or of interest to the respondent.

Questions 25 through 31 attempted to determine a respondent's knowledge about the Cooperative Extension Service. Questions 26 through 30 were designed by the author to assess the respondent's knowledge of the goals of the Cooperative Extension Service. The statements included in the questions were taken from promotional materials

describing MCES, the Michigan State University Agricultural Experiment Station and academic programs in the College of Agriculture and Natural Resources.

Respondents were also asked to rate a variety of program topics (questions 32 through 41). These ratings attempted to assess the respondents' perceptions of Extension's program priorities. Question 42 actually prioritized the program areas for respondents. Space was left for recording respondents' order of priorities, if they volunteered a different listing.

Questions 43 and 44 asked respondents about citizen input in determining the educational programs offered by Extension. These items were designed to assess respondents' awareness of the local influence on Extension-sponsored programs.

Question 45 attempted to determine respondents' satisfaction with the Cooperative Extension Service.

Questions 46 through 59 provided demographic data about respondents, including residence, age, race, education, employment, marital status and income. The data will provide a basis for statistical comparison with the general population of the Grand Rapids standard metropolitan statistical area.

## Study design

This research study utilized a cross-sectional survey to assess the public's awareness of the Michigan Cooperative Extension Service. With the cross-sectional survey, standardized information is collected from a sample drawn from a predetermined population at one point in time. A survey instrument that could be implemented in a statewide survey of the public's perceptions of the Michigan Cooperative Extension Service was developed and tested in the Grand Rapids standard metropolitan statistical area (GR-SMSA).

The GR-SMSA was selected for several reasons. First, it was important to maintain population validity throughout this project. Population validity, in this study, referred to the extent to which the results could be generalized from the specific sample taken to a larger group of subjects. Characteristics of the respondents should have approximated those of the general Michigan population. Of foremost concern was the urban-rural population distribution. See Table 1 for a comparison of selected characteristics.

There are 12 standard metropolitan statistical areas (SMSAs) in Michigan. Each SMSA has one or more central counties containing the area's main population concentration: an urbanized area with at least 50,000 inhabitants. An SMSA may also include outlying counties which have close economic and social relationships with the central counties. The

Selected Characteristics of the Adult Population in the Grand Rapids Standard Metropolitan Statistical Area Compared with the State of Michigan Population Table 1.

Characteristic	GR-SMSA (percent)	Michigan (percent)
Sex female male	51.5 48.5	51.2 48.8
Race White Black American Indian, Eskimo, Aleut Asian and Pacific Islander Spanish origin	9 2 0 0 0 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6	85.0 12.9 0.4 1.8
Education  Persons 18-24 years old:  high school graduates 4 or more years of college Persons 25 and older: less than 5 years elementary high school graduates 4 or more years of college Median years of school completed	80.4 5.3 1.3 70.4 15.9	77.3 5.4 2.2 68.0 14.3 12.5 years
Employment status employed unemployed	59.8 6.6	52.8 11.0

Table 1. (cont'd.)

Characteristic	GR-SMSA (percent)	Michigan (percent)
Income less than \$5,000 \$5,000 - 9,999 \$10,000 - 19,999 \$20,000 - 24,999 \$25,000 - 34,999 \$35,000 - 49,999 more than \$50,000	9.5 13.9 29.4 18.9 9.3	

outlying counties must have a specified level of commuting to the central counties and must also meet certain standards regarding metropolitan character, such as population density, urban population and population growth. According to 1980 Bureau of Census data, approximately 82 percent of Michigan's population lives inside the 12 standard metropolitan statistical areas.

Selection of the area to be surveyed was based on the following criteria: 1) a minimum of two counties; 2) the selected counties must comprise a complete SMSA; 3) the SMSA must contain at least one rural and one urban county; and 4) the urban-rural population distribution of the SMSA must approximate the State of Michigan's urban-rural population distribution. The Grand Rapids SMSA (Kent and Ottawa counties) met all four criteria. See Table 2 for a comparison of population characteristics.

In addition, Grand Rapids is frequently used as both a standard test market and as a controlled test market. 67

A target population can be defined as all members of a real or hypothetical set of people, events or objects to which the results of the study will be generalized. For

<sup>66</sup>U.S., Department of Commerce, Bureau of the Census, United States Census of Population: 1980, vol. 1, Number of Inhabitants, pt. 24, Michigan.

<sup>67</sup>Thomas C. Kinnear and James R. Taylor, Marketing
Research: An Applied Approach (New York: McGraw-Hill Book
Company, 1983), p. 620.

Population Distribution by Urban and Rural Residence in 1980 Table 2.

Area	Population distribution percent Urban Rural	ibution percent Rural
State of Michigan	70.7	29.3
Grand Rapids SMSA	71.7	28.3
Kent County (urban)	81.8	18.2
Ottawa County (rural)	43.4	9*95

this study, the target population is all residents of the Grand Rapids standard metropolitan statistical area. All members of a population must have a known chance of being included in the sample if the sample is to be considered representative of a population. Representativeness becomes a problem for studies that deal with populations that are not completely specified (for example, the general public).

The random digit dialing technique was used to sample the population in Kent and Ottawa counties. Random digit dialing (RDD) is an alternative to conventional list or directory sampling that gives all working telephone numbers an equal chance of being sampled whether they are listed or not. In the United States, about 22 percent of all household numbers are unlisted, and in large metropolitan areas the rate is much higher. Approximately 33 percent of the households in the Grand Rapids SMSA have unlisted telephone numbers. 70

A sample of telephone numbers was purchased from the University of Michigan's Institute for Social Research. The

<sup>68</sup> Don A. Dillman, Mail and Telephone Surveys: The Total Design Method (New York: John Wiley & Sons, Inc., 1978), p. 41.

<sup>69</sup> Robert M. Groves, "An Empirical Comparison of Two Telephone Sample Designs," <u>Journal of Marketing Research</u> 15 (November 1978): 622.

<sup>&</sup>lt;sup>70</sup>Sharon Benson, R.L. Polk & Company, Telephone conversation, 29 May 1985.

sampling materials included 335 cluster packets. Each cluster packet (see Appendix B) corresponds to one RDD primary stage selection of a hundred series. The primary number was followed by 99 prerandomized secondary telephone numbers to complete the hundred series of the selected primary telephone number.

Telephone numbers in the United States can be divided into three parts: A three-digit area code (AC), a three-digit central office code (COC) and a four-digit number or suffix. For example:

Area codes divide the United States into non-overlapping telephone service regions. Within area codes, exchanges form the next lower level of the telephone system (for example, the Grand Rapids exchange). Exchanges are the local service and administrative units, generally headquartered in a city or municipality. However, there is poor correspondence between telephone exchange boundaries and common geopolitical boundaries such as county lines. Consequently, random digit dialing telephone surveys which focus on specific counties require an initial question to screen out exchange customers who live outside the target area.

Within each exchange, telephone numbers are assigned to a pre-defined set of three-digit central office codes that serve the exchange. The number of central office codes

assigned to an exchange can vary from one to 30 or more. Generally, the greater the population of the exchange, the greater the number of central office codes assigned to it.

The numerical combination of the area code and central office code specifies the first six digits of every U.S. telephone number. A list of all working area code-central office code (AC-COC) combinations is updated monthly and made available through the Long Lines Division of AT&T.

The actual identification of random digit dialing sample telephone numbers is performed in two stages. The first, or primary, stage of the RDD telephone sample uses the AT&T list of AC-COC combinations as a sampling frame. A stratefied sample of AC-COCs is systematically selected from the list of AC-COC combinations. Fifty-two AC-COC combinations, all located in the 616 area code, serve all or part of Kent and Ottawa counties.

Within each central office code, there are 10,000 possible four-digit suffixes (0000-9999) which may be used to construct telephone numbers for individual customers. A small number of AC-COCs are reported to have blocks of numbers devoted to special services of the telephone companies (for example, time and weather reports). These blocks of numbers, either partial or complete AC-COCs, were deleted from the sampling frame. All other complete AC-COCs were assumed to have the full 10,000 eligible numbers.

Primary sample numbers are generated by adding a random four-digit suffix to each of the AC-COC codes selected from the sampling frame. Each primary number is associated with a hundred series. For example, the number 517-355-0251 falls within the hundred series 517-355-0200 to 517-355-0299. Generation of a primary number signifies tentative selection of its hundred series as a sample cluster. Actual selection of a cluster for the second stage of sampling depends on the status of the primary number.

All 335 primary numbers were called and their status confirmed in order to define the set of eligible hundred series clusters. If a primary number was a working household number, its hundred series was retained as a sample cluster and a fixed number of working household numbers were randomly generated in the same hundred series. The primary number, however, was removed from the sample if it was a business or other non-residential number, a wrong connection, a disconnected number or other nonworking number.

A series of screening questions eliminated all business phones, misdialed numbers and residences outside of the Grand Rapids SMSA from the sample. Ten attempts were made to reach someone at each primary number. Attempts were made on different weekday evenings between 6:30 and 9:30 p.m., during the day (8:30 a.m. to 4 p.m.) on weekdays and occasionally on weekends.

The results of national studies indicate that approximately 20 percent of sample primary numbers lead to eligible hundred series for second stage sampling. However, the primary stage eligibility rate can vary from 10 to 35 percent, depending on local telephone service networks. Initially, 139 primary numbers (41.5 percent) were retained for the second stage sampling.

The second stage sample of telephone numbers were selected only from the hundred series that were retained after the primary stage sampling operations were completed. Within each primary stage cluster, secondary numbers were generated until a fixed number of working telephone households had been contacted within the hundred series.

The fixed number of working telephone households is called the cluster size. The second-stage cluster size for a two-stage random digit dialing telephone survey was set after the primary stage screening was completed.

To compute the second stage cluster size, the following equation was used:

For this study, the desired cluster size equaled 4.4 telephone numbers per cluster. Three secondary numbers were

<sup>71</sup> Steven G. Heeringa, University of Michigan Institute for Social Research, Memorandum, 9 September 1985.

initially generated from each cluster. Then, from every fourth cluster, a fourth secondary number was taken.

Each of the secondary numbers was called. If the secondary number was a working household number, an interview was attempted. If it was not a working household number, it was replaced by a new number from the same hundred series. The same system of disposition codes, screening for business phones and schedule of attempts was used for secondary numbers as was used for primary numbers. Only five attempts were made to reach someone at each secondary number. This procedure continued until the cluster size was achieved.

Callback appointments were set up with respondents who were unable to complete the interview on first contact. As many as 10 callbacks were made until a completion or refusal was established for that respondent.

Respondents were randomly selected within each household, using a procedure recommended by Steven G. Heeringa of the Institute for Social Research and outlined by Kish. 72

The selection process required identifying the number of adults in the household first. Each adult (individuals who are 18 years old or older) was identified by his/her relationship to the individual who answered the telephone

<sup>&</sup>lt;sup>72</sup>For a detailed examination of the respondent selection procedure and its reliability, see Leslie Kish, "A Procedure for Objective Respondent Selection Within the Household," American Statistical Association Journal 44 (September 1949): 380-387.

(for example, husband, wife, brother, roommate, etc.). The sex and age of each adult was also recorded. Next, each adult was assigned a number. The males were numbered first in order of decreasing age, followed by females in the same manner.

A selection table was then consulted to determine who to interview. One of eight selection tables was randomly affixed to each cover sheet. The selection tables were provided with the survey materials received from the Institute for Social Research (a copy of the tables can be found in Appendix C). If no one of the specified sex resided at the number, an interview was conducted with the resident adult.

As demand grows for more information about households in the United States or in a given state, more survey research is being done by telephone. The most serious problem with the telephone interview is that some people do not have telephones, which eliminates them from the accessible population. For most adult populations, however, the number of persons without telephones would be very small, and their omission from the accessible population would probably not introduce a significant bias. Approximately 97 percent of U.S. households have access to telephone

<sup>73</sup>Walter R. Borg and Meredith D. Gall, Educational Research: An Introduction (New York: Longman, Inc., 1983), p. 448.

service. According to census data, 95.9 percent of Michigan households have telephone service. For Kent and Ottawa counties, 96.9 percent of households have telephone service.

The random digit dialing sampling design is "epsem."

An equal probability, self-weighting sample of working

household numbers results from proper use of the technique.

Threats to the epsem nature of the design come from two sources: 1) all numbers in an eligible hundred series are called without reaching the designated cluster size of working telephone households; 2) the status of a particular sample number (primary or secondary) is not confirmed. In other words, the phone rings without answer on every call or for some other reason it is not clear whether it is a working household number. If the number is a primary selection, it is unclear whether its cluster is selected; if it is a secondary number, it is unclear whether or not to replace it with another number from the same hundred series.

Once the cluster size is set, the survey should continue until the specified number of working secondary numbers has been contacted in each primary hundred series. Failure to complete each cluster can disrupt the equal probability sample design and may bias the sampling procedure.

<sup>74</sup> Earl Babbie, The Practice of Social Research (Belmont, Calif.: Wadsworth Publishing Company, 1983), p. 238.

# Analysis of the data

The Statistical Package for the Social Sciences (SPSS), a standard computer program widely used for interpreting questionnaire data, was used for data analysis. A question-by-question analysis of absolute and relative response frequencies was compiled. In addition, several variables were cross-tabulated.

### Chapter 4

#### **FINDINGS**

This chapter presents the results of data collected from a random sample of Kent and Ottawa County residents regarding their awareness, perceptions and use of the Michigan Cooperative Extension Service. A discussion of the findings will be found in the following chapter.

#### Response rate

It is difficult to calculate the response rate for a telephone survey because of the many possible outcomes of random digit dialing selection. Using this study for example, a response rate of 70.4 percent is obtained, using the following calculation:

response rate = persons known eligible and interviewed rate eligible and interviewed + refused x 100

The response rate is much lower, however, if the number of telephone numbers dialed is considered in the calculation.

Table 3 shows the number of telephone numbers called and the results.

According to Dillman, the response rate for his total design method telephone surveys of the general public should

Table 3. Sample of Telephone Numbers Used in the Survey

Result of dialing	number
household	
completed interview	388
refusal	163
non-household number <sup>a</sup>	377
unconfirmed	89
TOTAL	1,017
response rate <sup>b</sup> (percent)	54.2

a Includes business or other non-residential numbers, wrong connections, disconnected numbers or other nonworking numbers

bresponse rate = completed interviews + refusals x 100 total numbers dialed

average 85 percent and ranged from 73 to 92 percent. The response rate depends on the population being sampled.

Lower response rates are usually achieved in surveys of the general public while homogeneous populations, such as university faculty, Extension agents, veterinarians or ministers, tend to yield response rates that exceed 90 percent.

Dillman points out that response rate comparisons are very difficult to make because various methods are used to compute them. The following response rate calculation

is similar to the calculation used in Table 3 and shows how well the interviewer has done in reaching all potential respondents. However, it cannot be used if substitution procedures are a part of the study design. Since this study used substitution procedures, the response rate found in Table 3 cannot be used but does show how many telephone calls may be necessary when using the random digit dialing technique. The difference between the calculation used in this study and the calculation found in Table 3 is that the former excludes noncontacts or unconfirmed telephone numbers from consideration.

<sup>75</sup>Dillman, Mail and Telephone Surveys: The Total Design Method, p. 51.

<sup>&</sup>lt;sup>76</sup>Ibid., p. 49.

## General characteristics of the respondents

The findings of this two-county survey are based on 388 completed telephone interviews with a sample of the adult public, 18 years old and over. In some cases, a respondent may have elected not to answer a question. In addition, some questions were asked based on the respondent's answer to a previous question. Only 69 respondents, who had indicated that they had contacted the Extension Service or used Extension's services, answered questions 10 through 45. Therefore, total responses will vary from question to question.

Questions 46 through 59 of the survey instrument were used to obtain demographic data about respondents, including place of residence, age, race, education, employment, marital status and income. Table 4 compares the characteristics of the survey respondents with 1980 Bureau of Census data for the Grand Rapids standard metropolitan statistical area.

Table 5 indicates that the sample of interviews reflects the population distribution of the two counties. The random digit dialing technique provides a systematic sample that reflects population density and geographical distribution strata. While the sample in this study closely approximates the population distribution between Kent and Ottawa counties, it does not approximate the distribution of the urban-rural

Characteristics of Respondents from the 1985 Survey of Adults (18 years and older) in Kent and Ottawa Counties Compared with 1980 Bureau of Census Data Table 4.

Characteristics	GR-SM (N)	GR-SMSA Survey (N) (percent)	GR-	GR-SMSA Census (percent)
County of residence Kent Ottawa	283 105	72.9 27.1		73.9 26.1
Current place of residence farm	12		rural	28.3
town (less than 50,000) city (more than 50,000) don't know	103 220 1	26.5 56.7 0.3	urban	71.7
Place of residence where raised farm rural and nonfarm town (less than 50,000) city (more than 50,000)	65 67 85 171	16.8 17.3 21.9 44.1		
Sex female male	242 146	62.4 37.6		51.5 48.5

Table 4. (cont'd.)

Characteristics	GR-SM (N)	GR-SMSA Survey (N) (percent)	GR-SMSA Census (percent)
Race White Black American Indian Oriental Hispanic other refused	350 23 2 3 3 3	90.5 0.3 0.3 0.8 0.8	92.4 5.3 0.4 0.5 2.3
Education grade school high school college graduate degree refused	24 206 136 20	6.2 53.1 35.1 5.2 0.5	
Persons 18-24 years old: high school graduate 4 or more years college			80.4 5.3
Persons 25 and older: less than 5 years elementary high school graduates 4 or more years of college			1.3 70.4 15.9

Table 4. (cont'd.)

Characteristics	GR-SMS	GR-SMSA Survey	GR-SMSA Census (percent)
Employment status employed unemployed retired homemaker student refused	241 16 46 63 21	62.1 11.9 16.2 5.4	59.8
Marital status married separated divorced widowed never married refused	250 7 33 23 72 3	4.0 4.0 6.0 6.0 8.0 8.0	59.9 1.3 5.9 6.3 26.6
Income less than \$5,000 \$5,000 - 10,000 \$10,000 - 20,000 \$20,000 - 30,000 \$30,000 - 40,000 more than \$50,000 don't know refused	20 27 103 69 25 17	2 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9.5 13.9 29.4 4.4

Table 4. (cont'd.)

Characteristics	GR-SMSA Survey	A Survey (percent)	GR-SMSA Census (percent)
Income (cont'd.) \$20,000 - 24,999 \$25,000 - 34,999 \$35,000 - 49,999			14.9 18.5 9.3
Age (in 1985)  18 - 29 years old 30 - 39 40 - 49 50 - 59 60 - 64 65 and over refused	124 108 108 108 108 108 108 108 108 108 108	32.0 27.8 13.6 8.8 7.0 10.3	

Respondents' County of Residence Compared with Census Data Table 5.

	GR-SMS	GR-SMSA Survey	GR-SMSA Census
County of residence	Z	percent	percent
Kent County	283	72.9	73.9
Ottawa County	105	27.1	26.1

population. While this result was unanticipated, it should not limit the study but, rather, suggests a possible under-reporting of the total population's awareness of Extension, since Warner and Christenson documented that persons from farms, rural areas and small towns were more aware of Extension than were those who live in large cities. 77

Of the respondents, 64, or 16.5 percent, said their current place of residence was a farm or rural and nonfarm. According to 1980 census data, 28.3 percent of the Kent and Ottawa County population was classified as rural. The low percentage of respondents residing in rural areas could result from faulty telephone company equipment. In one particular rural area, several potential clusters of numbers had to be discarded because of consistent misconnections. Local operators and residents told the interviewers that bad underground telephone cables were the source of the problem.

The sample was also representative of the different races present in the Grand Rapids standard metropolitan statistical area. The largest percentage of respondents, 90.2 percent, identified themselves as being White. The second largest group, 5.9 percent, classified themselves as being Black. The remaining respondents identified themselves as American Indian, Oriental, Hispanic and other. The

<sup>77</sup>Warner and Christenson, The Cooperative Extension Service: A National Assessment, p. 50.

Hispanic segment of the population was underrepresented in this sample. Census data indicated that 92.4 percent of the population were White, 5.3 percent were Black, 0.4 percent were American Indian, 0.5 percent were Oriental, and 2.3 percent were Hispanic. The census data confirm the conclusion that the sample population was representative of the two-county population and the findings can be extended to the population of Kent and Ottawa counties.

Data in Table 4 indicate, however, that the sample contains a disproportionate number of females and individuals with higher levels of education. Females in the sample numbered 242, or 62.4 percent, and males comprised 37.6 percent of the sample, or 146. The percentage of females in the sample was higher than 51.5 percent, which was the reported percentage of females in the population according to the 1980 census for Michigan.

The data indicate that 53.1 percent of the respondents were high school graduates, and 35.1 percent had some college coursework or completed a four-year degree. The census data were classified into somewhat different categories and split into two age groups. This made comparisons difficult.

A higher percentage of households with large incomes is also included in the survey sample. According to census data, 52.8 percent of the population in Kent and Ottawa counties have annual incomes of less than \$20,000. However,

only 32.6 percent of the sample respondents had incomes of less than \$20,000. The largest percentage of survey respondents had incomes in the range of \$20,000 to \$30,000. Once again, census data were classified into slightly different categories.

Caution should be used in census data comparisons because of the age of census data and the possible change in population demographics. Table 6 contains an abbreviated respondent profile.

### Analysis of the data

The data are analyzed within the framework of the seven research questions examined in the study. Hypotheses are stated and tested as they relate to specific research questions. A discussion of the findings and their implications can be found in the following chapter.

Question 1: How aware are Kent and Ottawa County residents of the Michigan Cooperative Extension Service in general and specifically of the four program areas of agriculture-marketing, home economics, 4-H youth and natural resources-public policy?

Table 7 reviews name recognition of the Michigan

Cooperative Extension Service and its four program areas.

Kent and Ottawa County residents seem to have a very high

level of awareness of the Michigan Cooperative Extension

Service. As shown in Table 7, 382 of the 388 respondents,

Table 6. Selected Characteristics of Respondents

		CD_CI	ACA CHEMON
Chara	cteristic	$\frac{GR-SR}{(N)}$	(percent)
Age			
	less than 30	124	32.0
	30 <b>-</b> 39 40 <b>-</b> 64	108 114	27.8 29.4
	65 and over	40	10.3
Sex			
	male	146	37.6
	female	242	62.4
Race	White	350	90.2
	Black	23	5.9
	other	12	3.1
Incom			
	less than \$10,000	47	12.1
	\$10,000 - 19,999 \$20,000 - 29,999	79 103	20.4 26.5
	\$30,000 or more	122	31.4
Educa			
	grade school	24	6.2
	high school	206 136	53.1 35.1
	college graduate degree	20	5.2
Resid	ence		
	farm	12	3.1
	rural and nonfarm	52	13.4
	urban	323	83.2
	occupation farmer	16	4.1
	nonfarmer	370	95.4

Table 7. Awareness of the Michigan Cooperative Extension Service and Its Programs

Name and/or program area	GR-S (N)	MSA Survey (percent)
Cooperative Extension Service	155	39.9
Agriculture-marketing	85	21.9
Home economics	149	38.4
Natural resources-public policy	53	13.7
4-H youth	373	96.1
Combined total	382	98.5

(N = 388)

or 98.5 percent, indicated that they had heard of the
Michigan Cooperative Extension Service or one of its program
areas. The most widely recognized name was 4-H youth programs,
which was identified by 96.1 percent of the respondents.
Cooperative Extension Service was the second most widely
recognized name (39.9 percent), closely followed by home
economics (38.4 percent).

One might have expected that the agriculture-marketing program area would have been the most widely recognized given Extension's history. However, that was not the case. Both the home economics and 4-H youth program areas and the organizational name were more widely recognized by GR-SMSA

survey respondents. The low percentage of rural respondents coupled with the high percentage of female respondents in the sample population may be partially responsible for these findings.

Hypothesis 1: 4-H youth programs will be the most widely recognized program area throughout the total population.

The hypothesis was confirmed because as shown in Table 7, the 4-H youth program was recognized by 373 survey respondents, or 96.1 percent of those individuals surveyed. It is interesting to note, however, that of the respondents who had heard of 4-H, only 27.8 percent indicated that they had been 4-H members or 4-H volunteer leaders (see Table 8).

Table 8. Awareness of and Involvement in 4-H Youth Programs

Involvement in 4-H	frequency	percent
Awareness of 4-H youth programs	373	96.1
Respondent was a 4-H member	78	20.1
Respondent was a 4-H leader	30	7.7

(N = 388)

Table 9 shows the distribution of respondents by awareness of an Extension office in their county. Almost 77 percent of those who had used Extension, or a member of

Awareness of the County Extension Service Office Table 9.

Knowledge of county office	Households aware of county office percent of knowledgeables percent or (N = 68)	unty office percent of total (N = 388)
Aware of county Extension Service office	76.5	13.4
Unaware of county Extension Service office	2.9	0.5
Don't know	20.6	3.6

their household had used Extension services, were aware of an office in their county.

Hypothesis 2: The Michigan Cooperative Extension
Service has a pluralistic identity
instead of a single identity. More
respondents will recognize each of
the four program areas (agriculturemarketing, 4-H youth, natural
resources-public policy and home
economics) than the "umbrella"
organizational name (Michigan Cooperative
Extension Service).

The hypothesis was not confirmed because, as indicated in Table 7, only one program area--4-H youth--was recognized more frequently than the organizational name. The fact that more respondents recognized the 4-H youth program area name than the organizational name suggests that the Cooperative Extension Service struggles with multiple identities. However, the finding that more individuals recognized the name "Michigan Cooperative Extension Service" than the other program area names implies that ties between programs and the organization exists.

Question 2: To what extent are Kent and Ottawa County residents making use of the services of the Michigan Cooperative Extension Service?

Questions 8 through 13 were used to determine if the respondent, or a member of the respondent's household, had contacted an Extension agent or used the services of the Michigan Cooperative Extension Service. If a respondent had contacted Extension, he/she was also asked to identify which

Table 10. Individual and Household Use of the Michigan Cooperative Extension Service

	l (t) l		0/			ı
ion	s' use					
Have you personally ever contacted an Extension agent or used the services of Extension? Have other members of your family ever contacted an Extension or used the services of Extension? (N = 388)	Family members' (percent)	82.7	8.2	1.3	7.7	
the sid an ]	mily (P					
used ntacte	F B					
ant or Ter co						
on age ily ev	υ ·					
ttensi ir fam = 388)	Personal use (percent)	6.08	15.7	1.3	2.1	
an Exor	Persol (pel	~	•			
tacted mbers nsion?						
er con her me						
ly eve ve ot} ces of						
rsonal n? Ha servi						
ou pel ension d the						
Have you personally of Extension? Have or used the services				т		
	s.			swered	know	
QUESTION:	Response	No O	Yes	Not answered	Don't know	
			-	- •		•

program areas he/she may have used. Table 10 shows that 61 respondents, or less than 16 percent of the survey participants, have used the services that Extension offers.

Based on information provided by 69 survey respondents who had contacted Extension, Table 11 shows that the most frequently used program area is home economics. Agriculture—marketing and 4-H youth programs were second and third, respectively. Use of the 4-H program is likely to reflect an underreporting since respondents were adults.

Table 11. Use of the Four Extension Service Program Areas

Program area used	frequency	percent
Agriculture-marketing	26	37.7
Home economics	32	46.4
4-H youth	24	34.8
Natural resources-public policy	10	14.5

<sup>(</sup>N = 69)

The most used method of communication was written material, including bulletins, newsletters, publications or correspondence courses. On the other hand, the meeting or workshop was least used by clientele. Information on the communication methods used by clientele is presented in Table 12.

Methods of Communication Utilized by Clientele Table 12.

Methods	Households Utili percent of total (N = 388)	Households Utilizing This Method ent of total percent of users (N = 388) (N = 69)
Radio program	3.4	18.8
TV program	3.6	20.3
Written material (bulletins, newsletters, publications or correspondence courses)	7.0	39.1
Telephone service	5.2	29.0
Meeting or workshop	2.6	14.5

Question 3: What are some reasons for non-participation by Kent and Ottawa County residents in Michigan Cooperative Extension Service educational programs?

The two reasons most frequently identified, by the 59 respondents who had answered the questions, for not attending Extension-sponsored workshops were "I don't know when and where Extension programs are offered in my community" and "I've never seen or heard any publicity on what types of programs are offered by Extension." The problem appears to be that these respondents do not know what, where or when Extension programs are offered in their community, not that they are not interested in Extension programing.

Question 4: What is the level of Kent and Ottawa
County residents' understanding of the
purpose of the Michigan Cooperative
Extension Service?

Data in Table 14 indicate that the respondents who had contacted Extension are aware of Extension's purpose, but that a large percentage of these respondents cannot differentiate between the mission of the Cooperative Extension Service and the mission of the Michigan State University Agricultural Experiment Station. Slightly more than 94 percent of the respondents who have contacted Extension or used CES programs agreed to the statements,

Table 13. Reasons for NOT Attending Extension Workshops or Meetings

Reason	Percent of those not attending (N = 59)
I don't know when and where Extension programs are offered in my community.	64.4
I've never seen or heard any publicity on what types of programs are offered by Extension.	52.5
<pre>I don't understand what Extension is all about.</pre>	15.3
I'm not interested in the program topics.	27.1
The programs are held at the wrong time.	17.0
<pre>Extension doesn't offer programs in my community.</pre>	8.9

Table 14. Awareness of Extension's Mission

Statement	agree	<u>Percent</u> disagree	Percent response sagree neither	don't know
The job of Extension is to get practical, university-tested information into the hands of people who need it.	94.2	1.5	1	4.3
The Cooperative Extension Service provides courses for credit and offers two- and four-year degree programs in agriculture and natural resources.	27.5	14.5	4.4	53.6
<pre>Extension's mission (job or purpose) is to   provide people with practical, research-   based information.</pre>	91.3	<u> </u>	1.5	7.2
The ultimate goal of Extension is to conduct research that provides an ample food supply while preserving environmental quality and conserving resources.	65.2	14.5	1.5	18.8
The Cooperative Extension Service provides educational programs to bring research findings to the people of the United States.	94.2	!		5.8

(69 = N)

The job of Extension is to get practical, universitytested information into the hands of people who need it;

and

The Cooperative Extension Service provides educational programs to bring research findings to the people of the United States.

Just over 65 percent of those who answered the question, however, indicated that they thought the ultimate goal of Extension is to conduct research that provides an ample food supply while preserving environmental quality and conserving resources. Whether or not Extension offers two- and four-year degree programs is also unclear to respondents.

Question 5: What program areas or subject matter topics ought to receive greater or lesser attention from Cooperative Extension Service staff members?

According to data presented in Table 15, more than 65 percent of respondents who had contacted Extension or used its services agree or strongly agree that CES should place first priority on agricultural production and marketing programs. This was further reinforced by the ratings that the respondents gave to the food production and farm management program topics. Respondents, however, identified human nutrition as the program topic that should receive the greatest amount of importance. More than 90 percent of the respondents who answered the question indicated that Extension should give great or very great importance to the human nutrition topic. Table 16 presents the ranking of

Respondent-Identified Priority Rating of Program Areas Table 15.

QUESTION:	How do you feel about this statement? "CES should place findricultural production and marketing; second priority on priority on home economics, nutrition and family concerns; priority on community and economic development and natural resources?"	tement? "CES should place rketing; second priority o trition and family concern omic development and natur	"CES should place first priority on second priority on 4-H youth; third nd family concerns; and fourth lopment and natural and environmental
Response	ď	percent of total (N = 388)	<pre>percent indicating (N = 69)</pre>
Strongly disagree	lisagree	0.5	2.9
Disagree		<b>7.</b> 7	24.6
Neither ag	agree or disagree	0.8	4.3
Agree		8.6	55.1
Strongly agree	ıgree	2.1	11.6
Not answered	ed	82.2	;
Don't know		0.3	1.5

Table 16. Respondent Ranking of Program Topics

Ranking	Program topic
1	Human nutrition
2	Food production
3	Natural resources and environment
4	Farm management
5	Youth development
6	Community services and facilities
7	Family life and personal development
8	Forest management
9	Economic development
10	Home gardening and lawn care

program topics by respondents. A more detailed presentation of respondent-identified priorities for Extension programs can be found in Appendix D.

Information on respondents' perceptions of citizen input into CES program offerings is shown in Tables 17 and 18.

Only 23, or 33 percent, of the 69 respondents who answered the question thought citizens had input into determining Extension's program offerings.

Table 17. Perceived Citizen Involvement in Program Offerings

QUESTIONS: Do you agree or disagree with this statement? "Michigan citizens have had <u>no</u> input in determining the educational programs offered by Extension." (N = 69)

Response	percent frequency
Disagree	33.3
Agree	26.1
Neither agree or disagree	4.4
Don't know	36.2

Table 18. Perceived Citizen Input

QUESTION: How much input do you think Michigan citizens have had in determining the programs offered by Extension? (N = 24)

Response	percent frequency
None	4.2
Slight	33.3
Moderate	33.3
Great	4.2
Don't know	25.0

Question 6: How satisfied are Kent and Ottawa County residents with the educational services provided by the Michigan Cooperative Extension Service?

According to this study, 51.5 percent, or 35, of the 68 respondents who answered the question are satisfied with the Extension Service. On the other hand, almost 37 percent said that they did not know enough about Extension to answer the question and almost 12 percent said they were dissatisfied.

Table 19. Satisfaction with Extension in Kent and Ottawa Counties

Response	Percent total (N = 388)	Percent users (N = 68)
Dissatisfied	2.1	11.8
Satisfied	9.0	51.5
Neither satisfied or dissatisfied		
I don't know enough about Extension to answer	6.4	36.8
Not answered	82.5	

Question 7: Do residents of Kent and Ottawa counties perceive the Michigan Cooperative Extension Service as an agricultural agency designed to assist farmers and rural residents?

Question 31 asked 69 respondents who had contacted Extension or used its services if the Michigan Cooperative Extension Service is primarily an agricultural agency designed to assist farmers and rural residents. Table 20 shows that 47.8 percent of the respondents agree or strongly agree that CES is an agricultural agency for farmers and rural people. However, 42 percent said they disagree or strongly disagree with that statement.

Hypothesis 3: Both rural and urban respondents view the Michigan Cooperative Extension Service primarily as an agricultural agency designed to help farmers and rural residents.

The hypothesis was confirmed, based on information in Table 21. Almost 22 percent of the respondents who answered the question and who lived on farms or in rural and nonfarm areas agreed or strongly agreed that the Cooperative Extension Service is an agricultural agency while only 5.8 percent disagreed. Those who resided in urban areas, however, were split in their perception of Extension. Table 21 shows that 34.6 percent of urban respondents, who had contacted CES, either disagreed or strongly disagreed that Extension is primarily an agricultural agency. On the other

Table 20. Perceptions as an Agricultural Agency

QUESTION:	How do you feel about this statement? "T Service is primarily an agricultural agen rural residents?"	"The Michigan Cooperative Extension agency designed to assist farmers and	Cooperative Extension to assist farmers and
Response	percent (N =	percent of total po (N = 388)	percent of users (N = 69)
Strongly disagree		1.3	7.2
Disagree	9	6.2	34.8
Neither agree	or disagree	1.3	7.3
Agree	9	6.7	37.7
Strongly agree		1.8	10.1
Not answered		82.2	;
Don't know		2.9	0.5

Perception of Extension as an Agricultural Agency Based on Current Place of Residence Table 21.

Response	farm	Curre rural/nonfarm	Current residence arm town compensation (percent)	city	don't know
Strongly disagree	0.0	0.0	4.3	2.9	0.0
Disagree	0.0	5.8	13.0	14.4	1.5
Neither agree or disagree	1.5	0.0	2.9	2.9	0.0
Agree	5.8	10.1	8.7	13.0	0.0
Strongly agree	1.5	4.3	1.5	2.9	0.0
Don't know	0.0	0.0	1.5	1.5	0.0
Chi-square = 58.5, df = 24, signifi	gnificance = 0.0001	0001			

(8 = 8)

hand, 26.1 percent of urban respondents perceived Extension as an agricultural agency.

Hypothesis 4: The public's perception of the Michigan Cooperative Extension Service is related to an individual's experience(s) with the organization.

Based on information presented in Tables 22 through 26, the hypothesis was not confirmed. Tables 22 through 26 show that the contact an individual has with a particular program area may or may not significantly affect the individual's perception of the Cooperative Extension Service.

Table 22 presents a synopsis of respondents' program area contact and their perception of Extension as an agricultural agency. Twenty-six of the respondents answering the questions indicated that they had contacted Extension regarding agriculture-marketing programs, 32 respondents had contacted Extension concerning home economics, 24 individuals had contacted CES about 4-H youth programs and 10 people said they had contacted Extension about natural resources-public policy programs. Note that many respondents had contacted CES regarding more than one program area.

Slightly more than 17 percent of the 26 respondents who had contacted Extension regarding agriculture-marketing programs agreed or strongly agreed that CES was primarily an agency to assist farmers and rural residents. On the other hand, almost 16 percent of those 26 respondents strongly disagreed or disagreed.

Perception of Extension as an Agricultural Agency Based on Program Area Contact Table 22.

Response	Percent respondents who had contacted each program area agriculture-marketing home economics 4-H NR-	had contacted each home economics	n program 4-H	area NR-PP
Strongly disagree	0.0	5.8	2.9	0.0
Disagree	15.9	15.9	8.7	4.3
Neither agree or disagree	4.3	1.5	1.5	1.5
Agree	10.1	18.8	17.3	8.7
Strongly agree	7.2	2.9	2.9	0.0
Don't know	0.0	1.5	1.5	0.0

Table 22 also shows that the 32 respondents who had contacted CES about home economics programs were equally split in their perception of Extension as an agricultural agency. However, almost twice as many people who had contacted Extension about 4-H youth programs agreed or strongly agreed that Extension is primarily an agricultural agency. And, more than twice as many respondents who contacted CES regarding natural resources-public policy programs perceived Extension as an agricultural agency as those who disagreed or strongly disagreed with the statement.

Tables 23 through 26 presents more detailed information about respondents' perceptions of CES and their contact with a program area. An important finding is that 30.4 percent of those who had not contacted Extension for agriculture—marketing information perceived the agency as an agricultural one.

Table 24 shows that twice as many people who had contacted CES regarding natural resources-public policy programs perceive Extension as an agricultural agency as those who do not perceive Extension as such. Tables 22 and 24 clearly show that 8.7 percent of the 10 respondents who had contacted Extension regarding NR-PP programs agreed that Extension is an agricultural agency, compared with 4.3 percent who disagreed with that perception. Note, however, that those respondents who had not contacted Extension about NR-PP were evenly split in their perceptions.

Perception of Extension as an Agricultural Agency by Those Who Had Contacted Extension Regarding Agriculture-Marketing Programs Table 23.

Response	Contacted CES no	Contacted CES regarding ag-marketing programs no yes don't know (percent)
Strongly disagree	5.8	0.0
Disagree	18.8	15.9
Neither agree or disagree	2.9	4.3
Agree	27.5	10.1
Strongly agree	2.9	7.2
Don't know	2.9	
Chi-square = 515.2, df = 18, significance = 0.0	0.0	

(8 = N)

Perception of Extension as an Agricultural Agency by Those Who Had Contacted Extension Regarding Natural Resources-Public Policy Programs Table 24.

Response	Contacted CE no	Contacted CES regarding NR-PP programs no yes don't know (percent)
Strongly disagree	7.3	0.0
Disagree	30.4	4.3
Neither agree or disagree	5.8	1.5
Agree	27.5	8.7 1.5
Strongly agree	10.1	0.0
Don't know	2.9	0.0
Chi-square = 421.8, df = 18, significance = 0.0		

(N = 69)

As a group, respondents who had contacted Extension regarding home economics programs were divided in their perception of CES as an agricultural agency. Twice as many respondents strongly disagreed (5.8 percent) with the statement as those who strongly agreed (2.9 percent). However, 21.7 percent of 32 respondents who had contacted Extension regarding home economics programs perceived Extension as an agricultural agency and 21.7 percent of respondents strongly disagreed or disagreed.

Of the 24 respondents who had contacted CES regarding 4-H youth programs, almost twice as many perceived Extension as an agricultural agency (20.2 percent) as those who did not (11.6 percent).

Perception of Extension as an Agricultural Agency by Those Who Had Contacted Extension Regarding Home Economics Programs Table 25.

Response	Contacted CES regarding home economics programs no yes (percent)	ograms
Strongly disagree	1.5	
Disagree	18.8	
Neither agree or disagree	5.8 1.5	
Agree	18.8	
Strongly agree	7.2	
Don't know	1.5	
Chi-square = 414.5, df = 12, significance = 0.0	0.	

(69 = N)

Perception of Extension as an Agricultural Agency by Those Who Had Contacted Extension Regarding 4-H Youth Programs Table 26.

Response	Contacted CES regarding	Contacted CES regarding 4-H youth programs no yes (percent)
Strongly disagree	4.3	2.9
Disagree	26.1	8.7
Neither agree or disagree	5.8	1.5
Agree	20.3	17.3
Strongly agree	7.2	2.9
Don't know	1.5	1.5
Chi-square = $406.9$ , df = 12, significance = $0.0$	0.	

(69 = N)

#### Chapter 5

#### DISCUSSION AND CONCLUSIONS

This chapter presents a discussion of this study's findings and their implications for the Michigan Cooperative Extension Service. A discussion of the relevant literature on image is also included in this chapter. Conclusions and recommendations for further study are also presented.

# Discussion of findings

The purpose of this study was to gather baseline data of the public's awareness, perceptions and use of the Michigan Cooperative Extension Service. The awareness of Michigan residents was determined by seven questions which assessed: 1) name recognition of the parent organization or program areas, 2) participation in programs offered by the Cooperative Extension Service, and 3) knowledge of an Extension office in the county.

The findings will be discussed and explained within the contexts of the survey technique and the sample population and the seven research questions stated for this study.

The survey technique and the sample population. As was noted earlier, the random digit dialing (RDD) technique provides a systematic sample of a population that reflects

population density and geographical distribution. The sample population used in this study approximated the population distribution between Kent and Ottawa counties very closely. However, it did not reflect the urban-rural population distribution as closely as the author would have preferred. This does not mean that the use of a telephone survey or the random digit dialing technique was the wrong approach. The RDD technique is superior to directory sampling when surveying a population with a high percentage of unlisted telephone numbers (i.e., the Grand Rapids SMSA).

The overrepresentation of females in the sample population might have resulted from the method used to select respondents within households. Following comparison checks of four sample populations with census data, Kish reported that males appeared to be underrepresented among the respondents of three of the four surveys. "Although the difference was small, its presence in three surveys pointed to possible occasional deviation from rigorous procedure in the field." Kish identified two sources of bias, both due to the fact that males are more difficult to find at home even with repeated call-backs: overrepresentation of males among the non-respondents (or refusals) and an occasional substitution on the part of interviewers.

<sup>78</sup> Kish, "A Procedure for Objective Respondent Selection Within the Household," p. 386.

In the Oklahoma State University telephone survey conducted by Cosner et al., the representation of respondents by sex was skewed toward females. Approximately 62.9 percent of the respondents were female. Cosner reported that "Since individuals were randomly selected from randomly selected counties rather than from the state as a whole, the generalizability to the total general public might be more limited than the generalizability to the general public of those 14 counties."

Jennings also noted that more females than males were present in the sample population. In her Arkansas telephone survey, 56.9 percent of the respondents were female. Census data for 1980 indicated that 51.7 percent of the population was female.

The fact that survey data and census data on levels of education and income were split into different categories made comparisons difficult. Different conclusions may have been derived if the survey instrument had used Bureau of Census categories. Census categories were not used initially, because the survey was a two-county specific replication of Warner and Christenson's national assessment of Extension.

<sup>79</sup>Cosner et al., "The Awareness of the General Public of Oklahoma of the Instruction, Extension and Research Components of the Division of Agriculture at Oklahoma State University," p. 2.

Discussion of the seven research questions. The following discussion is presented by research question. It includes implications of the findings and compares the results of the Michigan Cooperative Extension Service survey with the results of Warner and Christenson's national assessment 80 of the Cooperative Extension Service and other relevant studies of Extension and its clientele.

Question 1: How aware are Kent and Ottawa County residents of the Michigan Cooperative Extension Service in general and specifically of the four program areas of agriculture-marketing, home economics, 4-H youth and natural resources-public policy?

Kent and Ottawa County residents who were surveyed have a very high level of awareness of the Michigan Cooperative Extension Service and its four program areas. The 4-H youth program was the most widely recognized program area with 96.1 percent of the respondents indicating that they had heard of 4-H.

Table 27 compares this study's name recognition results with the data from the national assessment of Extension's image. In both studies, 4-H was the most widely recognized program area name, although the difference in the percentage of respondents recognizing the name was rather large--96.1

<sup>80</sup> Warner and Christenson, The Cooperative Extension Service: A National Assessment.

Awareness of the Michigan Cooperative Extension Service and Its Programs Compared with the National Assessment of Extension Table 27.

			2 C C C C C C C C C C C C C C C C C C C
name and/or program area	(n)	(n) (percent)	(percent)
Cooperative Extension Service	155	39.9	40
Agriculture-marketing	85	21.9	52
Home economics	149	38.4	45
Natural resources-public policy	53	13.7	
Community development			46
4-H youth	373	96.1	77
Combined total	382	98.5	87

(N = 388)

percent in the MCES survey compared with 77 percent in the national study. Warner and Christenson suggest that the reason that 4-H has the greatest name recognition is because the name is short, easy to remember and has not changed over time. <sup>81</sup> The 4-H program also reaches a larger number of people in diverse geographical regions.

The organizational name Michigan Cooperative Extension Service was the second most widely recognized name, followed by home economics, agriculture-marketing and natural resources-public policy program areas. The same percentage of respondents in the Michigan and the national studies recognized the organizational name, Cooperative Extension Service.

A much smaller percentage of MCES survey respondents recognized the agriculture-marketing, home economics and natural resources-public policy program area names than respondents recognized in the national assessment. The low percentage of rural respondents may be partially responsible for these results.

A second explanation for the low name recognition, especially of the agriculture-marketing program area, requires consideration of the structure of Michigan agriculture and the role agriculture plays in Michigan's economy. The automobile industry dominates the Michigan

<sup>81</sup> Ibid., p. 49.

economy, followed by agriculture and tourism. The Michigan agriculture industry is highly diversified, producing more than 50 food and fiber commodities. In addition, Michigan farms tend to be smaller than the national average and, most importantly, their operators have other sources of income.

Wright, in 1983, analyzed Michigan farm structure. 82

He characterized Michigan farms as small, averaging 168

acres in 1978. Michigan farms averaged approximately 40

percent the size of the national average. In 1985, according to the Michigan Department of Agriculture, an average

Michigan farm has grown in size to 181 acres. The Michigan Agriculture Reporting Service's southwest district, which includes Kent and Ottawa counties, had 26 percent of the state's farms under 50 acres and 18 percent of all farms, in 1983. The district is one of two districts with the smallest average farm size and was one of three districts with the highest percentage of farmers working 200-plus days per year off the farm.

Wright also found that 55 percent of Michigan's farmers identified their occupation as other than farming.

Given this information, coupled with Extension's history and perhaps an individual's perception of CES, it is

<sup>82</sup>Karl T. Wright, A Comparison of Farm Sizes in Michigan (East Lansing, Mich.: Michigan State University Cooperative Extension Service, 1983), p. 2.

not surprising that the agriculture-marketing program area name was not as widely recognized or used as the Extension agriculture program nationwide. Part-time farmers may not be aware of Extension's programs or may consider themselves ineligible to use Extension's services. In addition, many MCES agriculture-marketing programs may not target this part-time farm operator audience, present information of use to these individuals or be held at times convenient for them.

Extension staff members should recognize that a high name recognition rate does not imply anything more than awareness.

Question 2: To what extent are Kent and Ottawa
County residents making use of the
services of the Michigan Cooperative
Extension Service?

Less than 16 percent of the Michigan survey respondents had ever contacted an Extension agent or used the services of Extension. In the national study, 23 percent of respondents indicated that they had personally contacted an Extension agent or used the services of Extension at some point in time.

The most frequently used program area identified by respondents in the MCES study was home economics. This finding may be a reflection of the disproportionate percentage of females in the sample. Slightly more than

percent of the respondents had contacted Extension about home economics information, compared with 43 percent of respondents in the national survey. In the Michigan study agriculture-marketing programs were the second most frequently used, closely followed by 4-H youth and finally, natural resources-public policy.

Results of the national assessment indicate, however, that the most frequently used program of Extension is agriculture. Home economics was second, followed by 4-H and community development. Table 28 compares the frequency of program area use for the two studies.

From the information in Table 28, one can conclude that Kent and Ottawa County residents do not utilize the services of the Michigan Cooperative Extension Service nearly as much as the national assessment indicates that Extension is used nationwide. Given the high awareness level people have of CES, it is ironic that Extension's services are not used by more people in Kent and Ottawa counties. The finding suggests that those who do utilize Extension's services and information are repeat and frequent users.

In the national survey, almost all respondents who had contacted Extension indicated that they had received some printed material from Extension. Over 90 percent indicated that they had listened to a radio program or watched a TV program conducted by Extension personnel. These findings

Frequency of Program Area Use as Identified by Respondents in the Michigan and Table 28.

National Studies of the Cooperative Extension Service	Extension Service	
Program area	MCES survey Na (percent)	National survey (percent)
Agriculture-marketing	37.7	62
Home economics	46.4	43
4-H youth	34.8	28
Natural resources-public policy	14.5	21
	والمراوعة	

sharply contrast with findings from the MCES survey. Of the Michigan respondents who had contacted Extension, only 39.1 percent indicated they had received printed material (compared to 99 percent in the national assessment). Another 39.1 percent indicated that they had watched a television program or listened to a radio program conducted by Extension personnel.

Question 3: What are some reasons for non-participation by Kent and Ottawa County residents in Michigan Cooperative Extension Service educational programs?

The two reasons most frequently identified for <u>not</u> attending Extension-sponsored programs were "I don't know when and where Extension programs are offered in my community" and "I've never seen or heard any publicity on what types of programs are offered by Extension." Coward, 83 in a study of Indiana families, found the same two reasons were most frequently reported for not attending Extension-sponsored programs. Jennings, 84 in a survey of Arkansas residents, also found that the largest percentage of the respondents did not participate in Extension programs because they were not aware of the educational services.

<sup>83</sup>Raymond T. Coward, "Greater Awareness--Extension's Key to Program Success," <u>Journal of Extension</u> 16 (September/October 1978): 11-17.

<sup>&</sup>lt;sup>84</sup>Jo Lynn Jennings, "Arkansas Residents' Perceptions of the Arkansas Cooperative Extension Service," p. 103.

These findings suggest that respondents do not know what educational opportunities the Cooperative Extension Service can provide and suggest that Extension's programs are under-publicized.

Question 4: What is the level of Kent and Ottawa
County residents' understanding of the
purpose of the Michigan Cooperative
Extension Service?

Survey respondents seem to be aware of the mission of the Cooperative Extension Service but the distinction between the missions of CES and the Agricultural Experiment Station is not clear. Such confusion could result from the respondents' unfamiliarity with the agricultural experiment station, as well as the Cooperative Extension Service.

Question 5: What program areas or subject matter topics ought to receive greater or lesser attention from Cooperative Extension Service staff members?

A majority, more than 65 percent, of the respondents agree that the Cooperative Extension Service should place first priority on agricultural production and marketing.

The fact that a large percentage of respondents placed first priority on agriculture further suggests that they perceive Extension as primarily an agricultural agency designed to assist farmers and rural residents.

Question 6: How satisfied are Kent and Ottawa
County residents with the educational
services provided by the Michigan
Cooperative Extension Service?

Slightly more than half of the respondents indicated that they were satisfied with the services provided by Extension. However, almost 37 percent said that they did not know enough about Extension to answer the question.

Question 7: Do residents of Kent and Ottawa counties perceive the Michigan Cooperative Extension Service as an agricultural agency designed to assist farmers and rural residents?

The Michigan Cooperative Extension Service is perceived as an agricultural agency designed to assist farmers and rural residents. The intensity and strength of that perception varied with the respondents' contact with Extension and place of residence.

# A brief discussion of image

Most of the emphasis on image has come from profitoriented businesses and product promotion. These same
principles can also be applied to and are true of nonprofit
organizations and services. People have images of nonprofit
and public organizations along the same dimensions that
they do for commercial organizations.

The concept of "image" is a vital and often discussed aspect of today's advertising, public relations and marketing practices. An examination of the literature on image reveals two different but related concepts. The distinction between the two lines of thought is based on the controlling source of the image. Images are thought to be controlled by the source of the image or by the observer viewing the imaged object.

This writer would argue that images are simultaneously controlled by both the source and by the observer. Kotler defines image as "the sum of beliefs, ideas, and impressions that a person has of an object" but goes on to say that an image is influenced by the objective characteristics of the perceiver.

Boorstin defines an image as "an artificial imitation or representation of the external form of any object, . . . "86 He describes an image as a carefully crafted personality profile of an individual, institution, corporation, product or service. The image is planned, created to serve a purpose and to make a particular impression. Once the image is in place, it commonly becomes the more important reality, merely perceived to be supported by the organization's conduct.

<sup>85</sup> Kotler, Marketing for Nonprofit Organizations, p. 57.

<sup>&</sup>lt;sup>86</sup>Daniel J. Boorstin, <u>The Image</u> (New York: Atheneum Publishers, 1962), p. 197.

The other school of thought regarding image is that it is the perceived characteristics of an object or person by other individuals. Images are the result of the observer drawing out certain characteristics about objects from his perceptions of those objects. 87

Image formation is not based entirely on facts, but is a result of all the past experiences of the possessor of the image. An "image" is a stereotype that acts as fact for the image holder. Images are not grounded in fixed events but rather in information and interpretative processes that change. 88 Images are also individual in nature, because values, experience, needs, thinking and perceiving are found in people. Consequently, there are many variables which affect an individual's image of another person or organization.

According to Boorstin, an image must serve an intended purpose. If a corporation's image of itself is not useful, it can be discarded. But according to Boulding, <sup>89</sup> an image resists change. When an individual receives messages which conflict with his image of an object, the messages are usually rejected as being false. Kotler refers to this

<sup>87</sup>Miller, "Images, Meaning and Organizational Names,"
p. 2.

<sup>88</sup> Warner and Christenson, The Cooperative Extension Service: A National Assessment, p. 44.

<sup>89</sup> Kenneth E. Boulding, The Image (Ann Arbor, Mich.: The University of Michigan Press, 1956), p. 8.

change resiliency as image persistence. "Image persistence is explained by the fact that once people have a certain image of an object, they tend to be selective perceivers of further data." And adding further to its change resistance, part of an image is the history of the image itself. Hence, image is controlled by both the source and the perceiver. These theories have important implications for Cooperative Extension Service marketing strategies, especially in the area of image promotion.

It must be recognized that members of the general public also have an image of the organization which affects their use of and legislative support for the organization. That image does not have to be a product of the individual's personal experience with the organization in question, but people can derive their image from what they have read or heard from family and friends. A market-oriented organization needs to monitor how it is seen by the public and take action to improve its public image if necessary.

In a dynamic society, there is continuous change in demographic, economic, technological, political, and social forces. New client needs and wants appear, new competition emerges, social values change, new laws are passed, and radically different technostructures appear. The organization that sticks to its historical business may find itself serving a declining market. Organizational survival is not just a matter of being efficient— . . .—but of being

<sup>90</sup> Kotler, Marketing for Nonprofit Organizations, p. 62.

adaptive, that is, managing to do the appropriate things in the changing environment.  $^{91}$ 

Warner and Christenson reached a slightly different conclusion than other researchers regarding the Cooperative Extension Service's image. Not only does Extension have multiple identities, but identities that are inconsistent with its touted image.

The predominant message that has been formally communicated to congressional representatives, government officials, and other policy makers is that Extension is an agency that serves agricultural producers. In other words, Extension has been represented almost exclusively as an agricultural agency. And, yet, that image is not reflective of the distribution of resources of current Extension programs nor the public's perception of the agency. The majority of Extension resources are devoted to programs in home economics, 4-H, and community development, not agriculture as has often been suggested. 92

A check of funds used by program areas for fiscal year 1978 revealed that agriculture and natural resources (ANR) programs received 38.4 percent of Extension monies; home economics and nutrition, 28.0 percent; 4-H and other youth programs, 26.2 percent; and community and rural development,

<sup>&</sup>lt;sup>91</sup>Ibid., p. 76.

<sup>92</sup>Warner and Christenson, The Cooperative Extension Service: A National Assessment, p. 136.

7.4 percent. 93 Warner and Christenson's conclusion is valid if one considers that agriculture and natural resources programs received 38.4 percent of Extension funds compared with 61.6 percent of funds that were used for other programs, including home economics, 4-H and community development.

ANR is generally acknowledged as the largest program area within the Cooperative Extension Service. Nationwide, about 40 percent of professional staff time and 36 percent of the total CES budget have been allocated to this program area in recent years.

### Conclusions

Several externalities potentially affect the population's use of the Michigan Cooperative Extension Service and its programs. These factors include the structure of Michigan agriculture, Extension's historical background and mission, and the individual's awareness and perception of the Cooperative Extension Service.

Based on this study, the following conclusions can be made:

The Michigan 4-H Youth Program is the most widely recognized Cooperative Extension Service program area in Michigan.

<sup>93</sup>United States Department of Agriculture, Science and Education Administration--Extension, Evaluation of Economic and Social Consequences of Cooperative Extension Programs (Washington, D.C.: U.S. Government Printing Office, 1980), p. 28.

The Michigan Cooperative Extension Service and its program areas enjoy a high level of public awareness.

Awareness, however, does not imply understanding. Data indicate that many respondents do not understand the purpose of Extension.

The services offered by the Kent and Ottawa County

Cooperative Extension Services are not utilized by a large
segment of the area's population.

The Michigan Cooperative Extension Service struggles with both pluralistic identities and a single identity.

The Michigan Cooperative Extension Service is perceived as an agricultural agency regardless of an individual's prior experience with the organization.

## Recommendations for action and further study

Because respondents indicated a lack of information about what, when and where Extension programs are offered, and about the CES organization, a planned, ongoing marketing program, with a strong public relations component, should be implemented. All Michigan CES personnel need to actively support and use a marketing approach to focus their programs. If the Michigan Cooperative Extension Service is to continue to target the public through its four program areas, it must do a better job of communicating its purpose and programs to all Michigan residents.

The Cooperative Extension Service administrators and their information staffs need to decide if they will promote individual program area identities or extend an organizational identity to all program areas. It is recommended that a concerted effort be made to extend the organizational name and identity to the four program areas.

It is strongly recommended that the CES logo and slogan, "Helping you put knowledge to work," be prominently used whenever possible. Color, size and placement should be consistent from county to county and from state administrative offices to county agents' newsletters. The ANR Information Services staff should have the responsibility for insuring proper usage of the design.

Extension staff members should identify themselves as representatives of the Cooperative Extension Service, not only the 4-H or agriculture agent or home economist. The organization could benefit from the high level of awareness that 4-H enjoys. This could be achieved if agents would take a minute at the beginning of their programs to explain how their program area complements the parent organization.

Extension personnel should be aware of the fact that the most common reason for non-participation in Extension educational programs is that people are not aware of services or opportunities offered. Staff members can and should make greater use of the mass media, especially local county newspapers, as information sources.

Extension staff members need to carefully assess the public's as well as the clientele's programing needs to better tailor program offerings. This might be done during program reviews by surveying a random sample of the public coupled with a survey of past program participants.

Several items in the questionnaire need to be rewritten or eliminated. The following two questions could be eliminated:

- Q. 28. Do you agree or disagree with this statement?
  "Extension's mission (job or purpose) is to
  provide people with practical, research-based
  information."
- Q. 30. Do you agree or disagree with this statement?

  "The Cooperative Extension Service provides educational programs to bring research findings to the people of the United States."

They are a rewording of the following question:

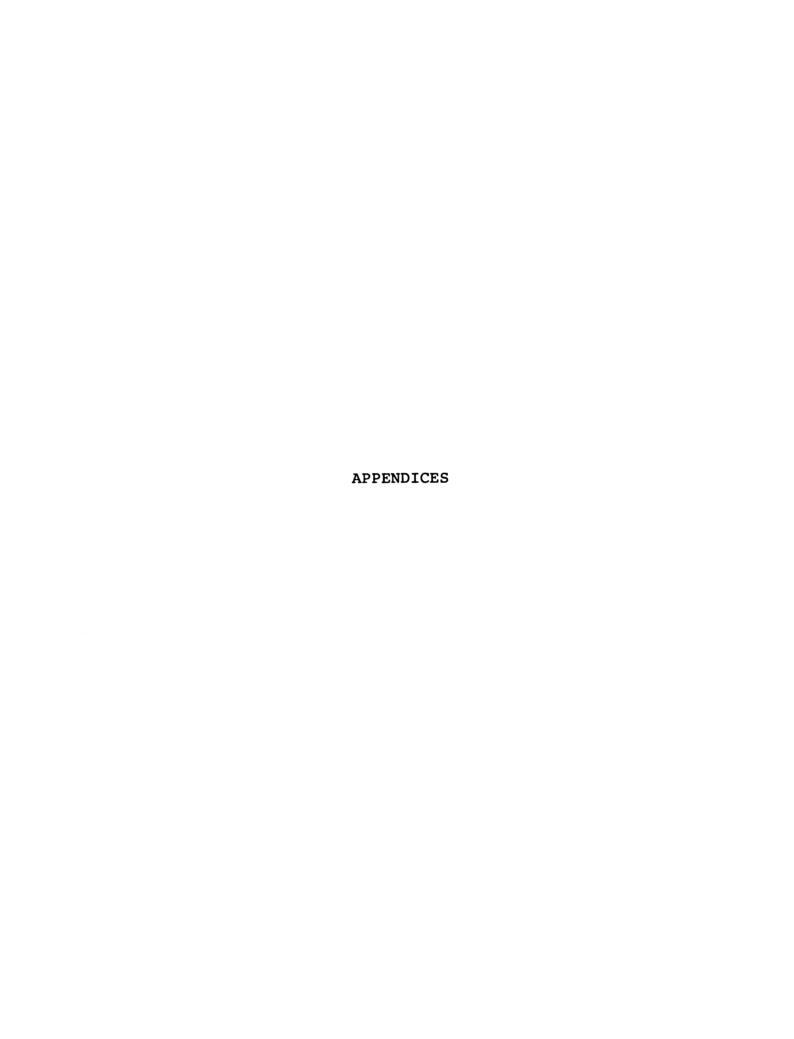
Q. 26. Do you agree or disagree with this statement?
"The job of Extension is to get practical,
university-tested information into the hands
of people who need it."

Question 48 would be rephrased to ask respondents their age, using census data categories. Also census data categories would be used for the question on family income. A revised survey instrument is included in Appendix E.

Since this study involved only two Michigan counties, it is strongly suggested that a more comprehensive study be conducted. The second study should be statewide in scope,

with the sample population containing residents from each Michigan county, and following the methodology used in this study.

A survey of Extension staff members should also be undertaken to assess their image of the Michigan Cooperative Extension Service. The data from this study and the two suggested studies could then be compared for similarities and differences between how the public views Extension and how its members view the organization.



## APPENDIX A

COVER SHEET AND SURVEY

ID #
for office use only

Hello, my name is
East Lansing. Here
and Natural Resource

**COVER SHEET** 

Hello, my name is \_\_\_\_\_\_. I'm calling from Michigan State University in East Lansing. Here at MSU, we are working on a study for the College of Agriculture and Natural Resources. First, I need to be sure that I dialed the right number.

Is this \_\_\_\_\_? (telephone number)

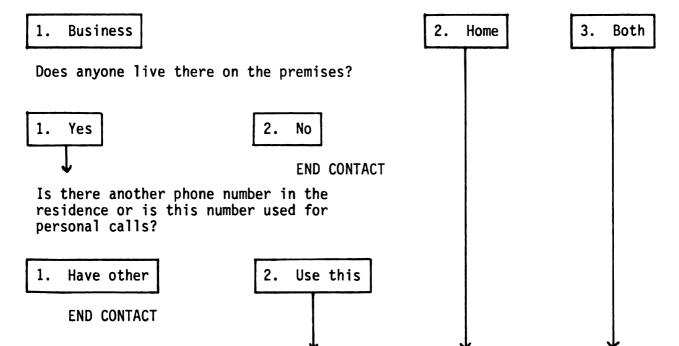
1. Yes

2. No

END CONTACT WITH, E.G.: I'm sorry, I have the wrong number.

(IF NOT CLEAR) Since this telephone number has been generated by a computer, I don't know whether this number is for a business or a home.

Is this a business or home telephone?



As I said, we are conducting this study for Michigan State University's College of Agriculture and Natural Resources. It's a survey of people randomly selected throughout Kent and Ottawa counties regarding an educational program.

What county do you live in?

- 1 1. Kent
  - 2. Ottawa
  - 3. Other (write in name of county)

(IF RESPONDENT DOES NOT LIVE IN KENT OR OTTAWA COUNTIES, END CONTACT WITH, E.G.: Thank you for your time. I'm sorry to have bothered you.)

I would like to interview someone in your household. But first, let me assure you that your identity is and will remain anonymous. We are calling numbers that are generated by a computer. We don't have names.

For most people, the survey will take about five to 10 minutes. Is this a convenient time for me to call?

1. Yes

2. No

Is there a day and time when I can call back?

1. Yes

2. No

(schedule day and time for recall)

Okay. In order to determine whom I need to interview, I'll need a listing of the members of your household--not their names, just their sex, age and relationship to you.

Let's start with you--how old are you? (IF UNCLEAR: Are you male or female?) Now I'd like the sex and age and relationship to you of each of the other members of your household who are 18 or older.

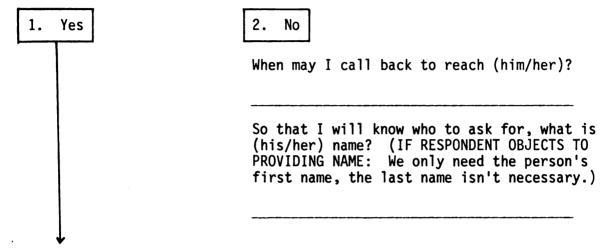
relation to informant	sex	age	eligible person number*
informant			

<sup>\*</sup>Number <u>males</u> first, in order of decreasing age. Number <u>females</u> in the same order. Selection table:

Now I'll use a selection procedure--I'm going to number the people in your household to determine who I need to interview--It will take just a second . . .

Okay, I need to interview (relation to informant)

(IF NOT THE PERSON ON THE LINE) May I speak with (him/her)?



Before we start, I would like to assure you that the interview is completely voluntary. If I ask a question that you don't want to answer, just let me know and we'll go on to the next question.

START INTERVIEW

RESPONDENT IS A:

- 2 1. Male
  - 2. Female

#### CALL RECORD

Primary numbers were called 10 times, if necessary. Secondary numbers were tried five different times.

call number	1	2	3	4	5	6	7	8	9	10
date										
time										
result										
code for recalls										

#### Abbreviations for result:

NA = no answerNH = not home WR = will return REF = refused

IC = interview completed

PIC = partially completed WN = wrong number

DISC = disconnected

#### Code for recalls:

A = respondent not selected B = respondent selected only

C = have talked with respondent (give any instructions helpful

for interview)

#### CALL AND APPOINTMENT NOTES

call number	notes	day/date	time

#### SURVEY

- 1. Have you ever heard of the Cooperative Extension Service (Sometimes called the Extension Service or Extension)?
  - 3 1. No
    - 2. Yes
    - 7. Not applicable
    - 8. Don't know
    - 9. Refused
- 2. Have you ever heard of Extension agriculture and marketing programs?

(Extension agriculture and marketing programs refer to any aspect of crop and livestock production and marketing. This includes such things as lawn and garden care as well as farming.)

- 4 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 3. Have you ever heard of Extension home economics programs or homemaker clubs?

(Extension home economics programs and homemaker clubs refer to programs in areas like nutrition, clothing and textiles, family resource management, housing and home furnishings, and health.)

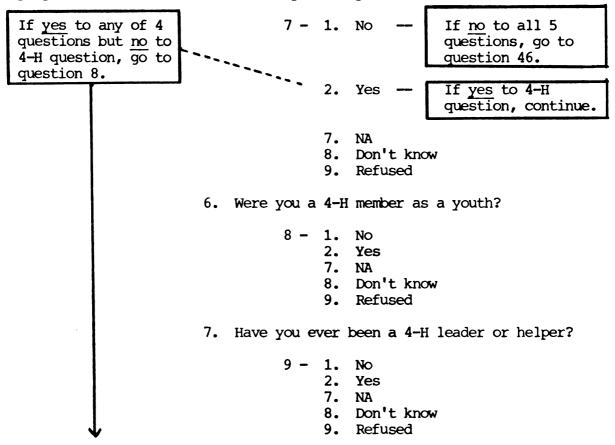
- 5 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 4. Have you ever heard of Extension natural resources and public policy programs?

(Extension natural resources and public policy programs refer to any aspect of forestry, fisheries, wildlife and conservation. This program area also includes the solution of community problems like the expansion of businesses and industry, taxation and the formation of local development organizations.)

- 6 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused

5. Have you ever heard of 4-H youth programs?

(4-H youth programs stress the development of young people through projects, activities and leadership development.)



8. Have you personally ever contacted an Extension agent or used the services of Extension?

9. Have other members of your family <u>ever</u> contacted an Extension agent or used the services of Extension?

- 2. Yes
- 7. NA
- 8. Don't know
- 9. Refused

If yes to question 8 or 9, continue.

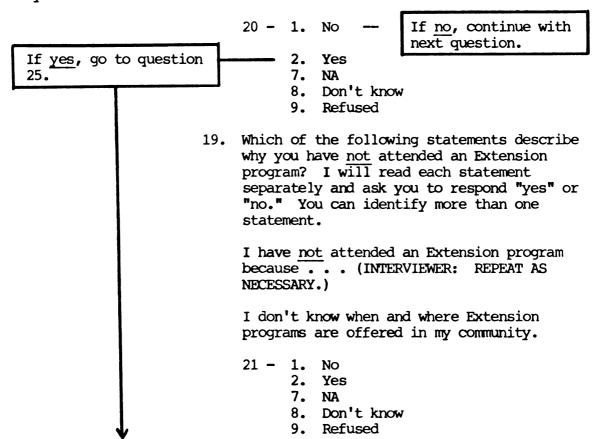
10. Did you or other members of your family contact or use Extension concerning:

agriculture and marketing programs

- 12 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 11. Home economics programs
  - 13 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 12. 4-H youth programs
  - 14 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 13. Natural resources and public policy programs
  - 15 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 14. Within the past year, have you listened to a radio program conducted by Extension personnel?
  - 16 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 15. Within the past year, have you watched a television program conducted by Extension personnel?
  - 17 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused

16.	Within the	past year,	have you	received	any written	material (	such as
	bulletins,	newsletters	, publica	ations or	corresponder	nce courses	s) from
	Extension?						

- 18 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 17. Within the past year, have you called an Extension telephone service for information?
  - 19 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 18. Within the past year, have you attended a meeting or workshop conducted by Extension?



20.		er seen or heard any publicity on e of programs are offered by n.
	8.	No Yes NA Don't know Refused
21.	I don't u about.	understand what Extension is all
	7. 8.	No Yes NA Don't know Refused
22.	I'm not i	interested in the program topics
	8.	No Yes NA Don't know Refused
23.	The progr	cams are held at the wrong time.
	8.	No Yes NA Don't know Refused
24.	Extension community	n doesn't offer programs in my
	26 <b>-</b> 1.	No Yes

25. Do you have an Extension Service office in your county?

27 - 1. No

Yes
 NA

7. NA

8. Don't know

8. Don't know 9. Refused

9. Refused

26.	Do you agree or disagree with this statement? "The job of Extension is
	to get practical, university-tested information into the hands of people
	who need it "

- 28 1. Disagree
  - 2. Agree
  - 3. Neither agree or disagree
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 27. Do you agree or disagree with this statement? "The Cooperative Extension Service provides courses for credit and offers two- and four-year degree programs in agriculture and natural resources."
  - 29 1. Disagree
    - 2. Agree
    - 3. Neither agree or disagree
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 28. Do you agree or disagree with this statement? "Extension's mission (job or purpose) is to provide people with practical, research-based information."
  - 30 1. Disagree
    - 2. Agree
    - 3. Neither agree or disagree
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 29. Do you agree or disagree with this statement? "The ultimate goal of Extension is to conduct research that provides an ample food supply while preserving environmental quality and conserving resources."
  - 31 1. Disagree
    - 2. Agree
    - 3. Neither agree or disagree
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 30. Do you agree or disagree with this statement? "The Cooperative Extension Service provides educational programs to bring research findings to the people of the United States."
  - 32 1. Disagree
    - 2. Agree
    - 3. Neither agree or disagree
    - 7. NA
    - 8. Don't know
    - 9. Refused

31. How do feel about this statement? "The Michigan Cooperative Extension Service is primarily an agricultural agency designed to assist farmers and rural residents." Do you . . .

- 33 1. Strongly disagree 2. Disagree

  - 3. Neither agree or disagree
  - 4. Agree
  - 5. Strongly agree
  - 7. NA
  - 8. Don't know
  - 9. Refused

Next, I would like to ask you to rate some program topics. I would like you to tell me if Extension should give a slight, moderate, great, or very great important to the topic. (INTERVIEWER: REPEAT QUESTION AS NECESSARY.)

The first topic is . . .

							very				
				slight	moderate	great		NA	DK	RF	
32.	Food production	34	_	1	2	3	4	7	8	9	
(	Should a slight, modera	te,	g	reat or	very great	import	ance be	giv	en t	ο.	)
33.	Human nutrition	35	-	1	2	3	4	7	8	9	
34.	Community services and facilities	36	-	1	2	3	4	7	8	9	
35.	Forest management	37	_	1	2	3	4	7	8	9	
36.	Home gardening and lawn care	38	-	1	2	3	4	7	8	9	
37.	Youth development	39	_	1	2	3	4	7	8	9	
38.	Natural resources and environment	40	-	1	2	3	4	7	8	9	
39.	Farm management	41	-	1	2	3	4	7	8	9	
40.	Family life and personal development	42	-	1	2	3	4	7	8	9	
41.	Economic development	43	_	1	2	3	4	7	8	9	

42.	on ag third fourt	ricultural production priority on home eco	and man	ent? "CES should place first priority cketing; second priority on 4-H youth; nutrition and family concerns; and economic development and natural and
				1. Strongly disagree 2. Disagree 3. Neither agree or disagree 4. Agree 5. Strongly agree 7. NA 8. Don't know 9. Refused
	42a.	IF THEY SHOULD VOLUN RECORD THEIR PREFERE		DIFFERENT LISTING OF PRIORITIES, PLEASE
		1		·
		2		
		3		
		4.		
43.	had n			s statement? "Michigan citizens have ducational programs offered by
		sagree, continue next question.	:	L. Disagree  2. Agree  3. Neither agree or disagree  7. NA  8. Don't know  9. Refused
		44.	have ha	ch input do you think Michigan citizens ad in determining the programs offered ension?
				None Slight Moderate Great NA Don't know Refused

45.	Are you satisfied with the (	Coope	rati	ve Extension Service in general?
			2. 3. 4. 7. 8. 9.	Don't know Refused
	uld now like to ask you a few vidual responses can be ident	_		ns for background purposes. No
46.				l area but not on a farm, in a town ity of 50,000 or more people?
		48 –	2. 3. 4. 7. 8.	Farm Rural and nonfarm Town (less than 50,000) City (50,000+) NA Don't know Refused
47.				l area but not on a farm, in a town ity of 50,000 or more people?
		49 –	2. 3. 4. 7. 8.	Farm Rural and nonfarm Town (less than 50,000) City (50,000+) NA Don't know Refused
48.	In what year were you born?	(la	st t	wo digits)
49.	What is the highest level of	f edu	catio	
		52 <b>-</b>	3. 4. 7. 8.	Grade school High school College Graduate degree NA Don't know Refused

50. Are you currently employed	?		
or the jou currency employed		2. 3. 4. 5. 7. 8.	Employed Unemployed Retired Homemaker Student NA Don't know Refused
51. Do you own or operate a fa	rm?		
If no, go to question 57.	54 -	2.	Yes — If <u>yes</u> , continue with next question.
		8.	NA Don't know Refused
52.	How m	any	acres do you operate?
		(wr	ite in)
			55 56 57 58
53.	Did y 1984?		gross farm sales exceed \$20,000 in
	59 <b>–</b>	2. 7.	No Yes NA Don't know Refused
54.	Is yo	our c	peration primarily crop or livestock?
	60 -	1. 2. 3. 4. 7. 8. 9.	Crop Livestock Both Other NA Don't know Refused
55.	In ad		on to farming, do you have an off-
If <u>no</u> , go to question 57.	61 -	1. 2. 7. 8.	No Yes — If yes, continue. NA Don't know

9. Refused

- 56. Is the job part-time or full-time?
  - 62 1. Part-time
    - 2. Full-time
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 57. Which one of the following groups do you consider yourself a member of? (INTERVIEWER: READ RESPONSE OPTIONS 1-6)
  - 63 1. White
    - 2. Black
    - 3. Hispanic (Puerto Rican, Mexican, )
    - 4. American Indian
    - 5. Oriental
    - 6. Other
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 58. Are you married, separated, divorced, widowed or have you never been married?
  - 64 1. Married
    - 2. Separated
    - 3. Divorced
    - 4. Widowed
    - 5. Never married
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 59. Finally, in 1984 was your total family income before taxes . . . (INTERVIEWER: READ RESPONSE OPTIONS 1-7)
  - 65 1. Under \$5,000
    - 2. \$5 to \$10,000
    - 3. \$10 to \$20,000
    - 4. \$20 to \$30,000
    - 5. \$30 to \$40,000
    - 6. \$40 to \$50,000
    - 7. \$50,000 or more
    - 8. Don't know
    - 9. Refused

These are all the questions I have. Thank you very much for your time and your help with our research.

## APPENDIX B

## CLUSTER PACKET

## 146 CLUSTER SHEET

CLUSTER NUMBER: 295 EXCHANGE: GRAND RPDS, MI

PRIMARY TELEPHONE NUMBER: 616/776-2591

PRIMARY ID#: 29500

PRIMARY TELEPHONE NUMBER RESULT:

1	HOUSEHOLD		NOT A	HOUSEHOLD		> DROP	CLUSTER
	KE INITIAL VER SHEETS	CLUST	TER SIZE:				
ID#	TELEPHONE NUMBER		ID# OF ENERATING VER SHEET	COVER SHEET MADE	R E HH	SULT NOT HH	ID# OF COVER SHEET GENERATED
29501	616/776-2504			<b>&gt;</b> □			•
29502	616/776-2574			<b>→</b>			
29503	616/776-2507			<b>→</b>			
29504	616/776-2589			<b>→</b>			
29505	616/776-2539			>			
29506	616/776-2531			<b>→</b>			
29507	616/776-2552			<b>→</b>			
29508	616/776-2595		}	<b>→</b>		>	
29509	616/776-2536			<b>→</b>			
29510	616/776-2518			<b>→</b>			
29511	616/776-2502			<b>→</b>			
29512	616/776-2586			<b>→</b>			

# 147 CLUSTER SHEET

EXCHANGE: GRAND RPDS, MI CLUSTER NUMBER: 295

ID#	TELEPHONE NUMBER	ID# OF GENERATING COVER SHEET	COVER SHEET MADE	R E S	U L T NOT HH	ID# OF COVER SHEET GENERATED
29513	616/776-2535		_> <u> </u>		>	
29514	616/776-2558		->		>	
29515	616/776-2576		_>		>	
29516	616/776-2546		<b>→&gt;</b>		>	
29517	616/776-2513		<b>→</b>		>	
29518	616/776-2526		->		>	
29519	616/776-2551		<b>&gt;</b>		>	
29520	616/776-2554		<b>&gt;</b>		>	
29521	616/776-2569		->		>	
29522	616/776-2538		>		>	
29523	616/776-2524		> <u> </u>		>	
29524	616/776-2509		>		>	
29525	616/776-2529		<b>→</b>		>	
29526	616/776-2562		<b>→</b>		>	
29527	616/776-2567		->		>	
29528	616/776-2598		_>		>	

# 148 CLUSTER SHEET

CLUSTER	NUMBER: 295		E	XCHANGE: G	RAND RPDS, MI
ID#	TELEPHONE NUMBER	GENERATING :	COVER R E SHEET MADE HH	SULT NOT HH	ID# OF COVER SHEET GENERATED
29529	616/776-2582	>		>	
29530	616/776-2510			>	
29531	616/776-2570	>		>	
2953 <b>2</b>	616/776-2532	>		>	
29533	616/776-2580	>		>	
29534	616/776-2517	>		>	
29535	616/776-2540	>		>	·
29536	616/776-2533	>		>	
29537	616/776-2545	>		>	
29538	616/776-2557	>		>	
29539	616/776-2525	>		>	
29540	616/776-2593	>			
29541	616/776-2528	>			
29542	616/776-2543	->			
29543	616/776-2599	>		>	
29544	616/776-2548	>		>	

## 149

## CLUSTER SHEET

CLUSTER NUMBER: 295 EXCHANGE: GRAND RPDS, MI

ID#_	TELEPHONE NUMBER	ID# OF GENERATING COVER SHEET	COVER SHEET MADE	R E S	U L T NOT HH	ID# OF COVER SHEET GENERATED
29545	616/776-2537		->		>	
29546	616/776-2563		->		>	
29547	616/776-2512		->		>	
29548	616/776-2542		->		>	
29549	616/776-2505		->		>	
29550	616/776-2515		->		>	
29551	616/776-2534		->		>	•
2955 <b>2</b>	616/776-2585		->		>	
29553	616/776-2596		->		>	
29554	616/776-2575		->		>	
2955 <b>5</b>	616/776-2568		->		>	
29556	616/776-2556		->		>	
29557	616/776-2578		->		>	
29558	616/776-2590		->		>	
29559	616/776-2553		->		$\longrightarrow$	
29560	616/776-2503		->		>	

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## CLUSTER SHEET

CLUSTER NUMBER: 295

EXCHANGE: GRAND RPDS, MI

						•
ID#	TELEPHONE NUMBER	ID# OF GENERATING COVER SHEET	COVER SHEET MADE	RESU HH	J L T NOT HH	ID# OF COVER SHEET GENERATED
29561	616/776-2511		->		>	
29562	616/776-2559		->		>	
295 <b>63</b>	616/776-2521		->		>	
29564	616/776-2523		->		>	
29565	616/776-2597		->		>	
29566	616/776-2514		->		>	
29567	616/776-2583		->		>	
29568	616/776-2541		->		>	
2956 <b>9</b>	616/776-2522		-> <u> </u>		>	
29570	616/776-2579		->		>	
29571	616/776-2519		->		>	
29572	616/776-2560		->		>	
29573	616/776-2572		->		>	
29574	616/776-2549		->		>	
29575	616/776-2573		->		>	
29576	616/776-2564		<b>→</b>		>	

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#### CLUSTER SHEET

CLUSTER NUMBER: 295

EXCHANGE: GRAND RPDS, MI

		TD# 05	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	C 11 T M	ID# 05
ID#_	TELEPHONE NUMBER	GENERATING SH	VER RE EET DE HH	S U L T NOT HH	ID# OF COVER SHEET GENERATED
29577	616/776-2594	->			
29578	616/776-2561	->		>	
29579	616/776-2571	->		>	
29580	616/776-2501	<b>─</b>		>	
29581	616/776-2555	> [			
29582	616/776-2508	>		>	
29583	616/776-2550	·		>	
29584	616/776-2520	>		>	
29585	616/776-2500	->		>	
29586	616/776-2506	>[		>	
29587	616/776-2592	<b>─</b>		>	
2958 <b>8</b>	616/776-2588	>[		>	
29589	616/776-2587	>[		>	
29590	616/776-2565	>[		>	
29591	616/776-2516	> [		>	
29592	616/776-2577	->[		>	

## 152

## CLUSTER SHEET

EXCHANGE: GRAND RPDS, MI CLUSTER NUMBER: 295

ID#	TELEPHONE NUMBER	ID# OF COVER GENERATING SHEET COVER SHEET MADE	R E S	U L T ID# OF NOT COVER SHEET HH GENERATED
29593	616/776-2547	>		>
29594	616/776-2581	>		>
29595	616/776-2544	<u> </u>		
29596	616/776-2566	<b>─────────────────────────────</b>		
29597	616/776-2530	>		>
29598	616/776-2584	->		>
29599	616/776-2527	<b>──</b>		>

## APPENDIX C

## RESPONDENT SELECTION TABLES

## RESPONDENT SELECTION TABLES

<u>Table</u>	If number eligible is:	Interview person:
A	1 2 3 4 5 6 or more	1 1 1 1 1
в1	1 2 3 4 5 6 or more	1 1 1 2 2
В2	1 2 3 4 5 6 or more	1 1 1 2 2 2
С	1 2 3 4 5 6 or more	1 1 2 2 3 3
D	1 2 3 4 5 6 or more	1 2 2 3 4 4
E1	1 2 3 4 5 6 or more	1 2 3 3 3 5
E2	1 2 3 4 5 6 or more	1 2 3 4 5 5

Table	If number eligible is:	Interview person:
F	1	1
	2	2
	3	3
	4	4
	5	5
	6 or more	6

#### APPENDIX D

# RESPONDENT-IDENTIFIED PRIORITIES FOR EXTENSION PROGRAMS

Respondent-Identified Priorities for Extension Programs Table 29.

Program topic	slight	moderate	Percent indicating great very	licating very great	don't know
Food production	!	17.4	59.4	23.2	;
Human nutrition	ł	8.7	63.8	27.5	1
Community services and facilities	8.7	34.8	42.0	13.0	1.5
Forest management	11.6	34.8	33.3	17.4	2.9
Home gardening and lawn care	10.1	47.8	30.4	10.2	1.5
Youth development	4.4	23.2	44.9	27.5	1
Natural resources and environment	ļ	23.2	46.4	29.0	1.4
Farm management	2.9	24.6	49.3	23.2	1
Family life and personal development	5.8	39.1	42.0	11.6	1.5
Economic development	10.1	40.6	40.6	8.7	1

(8 = N)

#### APPENDIX E

#### REVISED SURVEY

#### SURVEY

- 1. Have you ever heard of the Cooperative Extension Service (Sometimes called the Extension Service or Extension)?
  - 3 1. No

    - YesNot applicable
    - 8. Don't know
    - 9. Refused
- 2. Have you ever heard of Extension agriculture and marketing programs?

(Extension agriculture and marketing programs refer to any aspect of crop and livestock production and marketing. This includes such things as lawn and garden care as well as farming.)

- - Yes
     NA

  - 8. Don't know
  - 9. Refused
- 3. Have you ever heard of Extension home economics programs or homemaker clubs?

(Extension home economics programs and homemaker clubs refer to programs in areas like nutrition, clothing and textiles, family resource management, housing and home furnishings, and health.)

- 5 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 4. Have you ever heard of Extension natural resources and public policy programs?

(Extension natural resources and public policy programs refer to any aspect of forestry, fisheries, wildlife and conservation. This program area also includes the solution of community problems like the expansion of businesses and industry, taxation and the formation of local development organizations.)

- 6 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused

5. Have you ever heard of 4-H youth programs?

(4-H youth programs stress the development of young people through projects, activities and leadership development.)

If yes to any of 4 If no to all 5 questions but no to questions, go to 4-H question, go to question 44. question 8. If yes to 4-H 2. Yes question, continue. 7. NA 8. Don't know 9. Refused 6. Were you a 4-H member as a youth? 8 - 1. No 2. Yes 7. NA 8. Don't know 9. Refused 7. Have you ever been a 4-H leader or helper? 9 - 1. No 2. Yes

8. Have you <u>personally ever</u> contacted an Extension agent or used the services of Extension?

10 - 1. No

- 2. Yes
- 7. NA

7. NA

8. Don't know

8. Don't know9. Refused

- 9. Refused
- 9. Have other members of your family <u>ever</u> contacted an Extension agent or used the services of Extension?

11 - 1. No - If <u>no</u> to questions 8 and 9, go to question 44.

- 2. Yes
- 7. NA
- 8. Don't know
- 9. Refused

If yes to question 8 or 9, continue.

10. Did you or other members of your family contact or use Extension concerning:

agriculture and marketing programs

- 12 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 11. Home economics programs
  - 13 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 12. 4-H youth programs
  - 14 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 13. Natural resources and public policy programs
  - 15 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 14. Within the past year, have you listened to a radio program conducted by Extension personnel?
  - 16 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 15. Within the past year, have you watched a television program conducted by Extension personnel?
  - 17 1. No
    - 2. Yes
    - 7. NA
    - 8. Don't know
    - 9. Refused

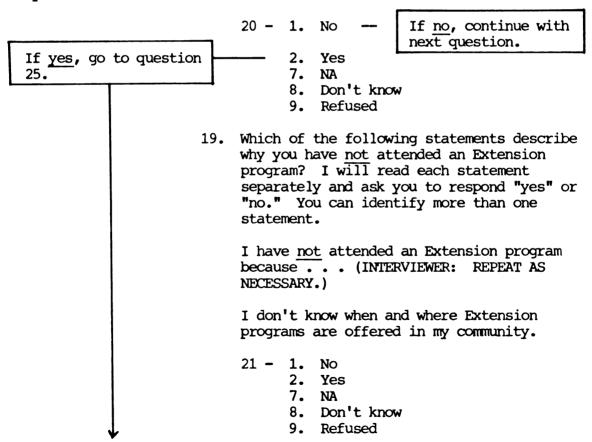
16. Within the past year, have you received any written material (such as bulletins, newsletters, publications or correspondence courses) from Extension?

- 18 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused

17. Within the past year, have you called an Extension telephone service for information?

- 19 1. No
  - 2. Yes
  - 7. NA
  - 8. Don't know
  - 9. Refused

18. Within the past year, have you attended a meeting or workshop conducted by Extension?



,	159
20.	I've never seen or heard any publicity on what type of programs are offered by Extension.
	22 - 1. No 2. Yes 7. NA 8. Don't know 9. Refused
21.	I don't understand what Extension is all about.
	23 - 1. No 2. Yes 7. NA 8. Don't know 9. Refused
22.	I'm not interested in the program topics.
	24 - 1. No 2. Yes

7. NA

Yes
 NA

Yes
 NA

Yes
 NA

25 - 1. No

community.

25. Do you have an Extension Service office in your county?

26 - 1. No

27 - 1. No

Don't know
 Refused

8. Don't know
9. Refused

8. Don't know9. Refused

Don't know
 Refused

23. The programs are held at the wrong time.

24. Extension doesn't offer programs in my

26.	Do you agree or	r disagree with	n this	statement?	"The	job o	of Exte	ensi	on is
	to get practica								
	who need it."								

- 28 1. Disagree
  - 2. Agree
  - 3. Neither agree or disagree
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 27. Do you agree or disagree with this statement? "The Cooperative Extension Service provides courses for credit and offers two- and four-year degree programs in agriculture and natural resources."
  - 29 1. Disagree
    - 2. Agree
    - 3. Neither agree or disagree
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 28. Do you agree or disagree with this statement? "The ultimate goal of Extension is to conduct research that provides an ample food supply while preserving environmental quality and conserving resources."
  - 30 1. Disagree
    - 2. Agree
    - 3. Neither agree or disagree
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 29. How do feel about this statement? "The Michigan Cooperative Extension Service is primarily an agricultural agency designed to assist farmers and rural residents." Do you . . .
  - 31 1. Strongly disagree
    - 2. Disagree
    - 3. Neither agree or disagree
    - 4. Agree
    - 5. Strongly agree
    - 7. NA
    - 8. Don't know
    - 9. Refused

Next, I would like to ask you to rate some program topics. I would like you to tell me if Extension should give a slight, moderate, great, or very great important to the topic. (INTERVIEWER: REPEAT QUESTION AS NECESSARY.)

The first topic is . . .

	•			slight	moderate	great	very great	NA	DK	RF	
30.	Food production	32	-	1	2	3	4	7	8	9	
(	Should a slight, modera	gı	reat or	very great	import	ance be	giv	en t	ο.	)	
31.	Human nutrition	33	_	1	2	3	4	7	8	9	
32.	Community services and facilities	34	-	1	2	3	4	7	8	9	
33.	Forest management	35	_	1	2	3	4	7	8	9	
34.	Home gardening and lawn care	36	-	1	2	3	4	7	8	9	
35.	Youth development	37	-	1	2	3	4	7	8	9	
36.	Natural resources and environment	38	-	1	2	3	4	7	8	9	
37.	Farm management	39	_	1	2	3	4	7	8	9	
38.	Family life and personal development	40	-	1	2	3	4	7	8	9	
39.	Economic development	41	_	1	2	3	4	7	8	9	

40. How do you feel about this statement? "CES should place first priority on agricultural production and marketing; second priority on 4-H youth; third priority on home economics, nutrition and family concerns; and fourth priority on community and economic development and natural and environmental resources."

- 42 1. Strongly disagree
  - 2. Disagree
  - 3. Neither agree or disagree
  - 4. Agree
  - 5. Strongly agree
  - 7. NA
  - 8. Don't know
  - 9. Refused

.

3.

41. Do you agree or disagree with this statement? "Michigan citizens have had no input in determining the educational programs offered by Extension."

If <u>disagree</u>, continue with next question.

- 43 1. Disagree
  - 2. Agree
  - 3. Neither agree or disagree
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 42. How much input do you think Michigan citizens have had in determining the programs offered by Extension?
  - 44 1. None
    - 2. Slight
    - 3. Moderate
    - 4. Great
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 43. Are you satisfied with the Cooperative Extension Service in general?
  - 45 1. Dissatisfied
    - Satisfied
    - 3. Neither satisfied or dissatisfied
    - 4. I don't know enough about Extension to answer
    - 7. NA
    - 8. Don't know
    - 9. Refused

I would now like to ask you a few questions for background purposes. No individual responses can be identified.

- 44. Do you now live on a farm, in a rural area but not on a farm, in a town of less than 50,000 people or in a city of 50,000 or more people?
  - 46 1. Farm
    - 2. Rural and nonfarm
    - 3. Town (less than 10,000)
    - 4. Suburb
    - 5. City (50,000+)
    - 7. NA
    - 8. Don't know
    - 9. Refused

45. What is your present age?

```
47 - 1. 18 - 24 years old
```

- 2. 25 29 years
- 3. 30 39 years
- 4. 40 49 years
- 5. 50 59 years
- 6. 60 64 years
- 7. 65 and over
- 8. Don't know
- 9. Refused
- 46. What is the highest grade that you have completed in school?
  - 48 1. Grade school
    - 2. Some high school
    - 3. High school graduate
    - 4. Some college
    - 5. College graduate
    - 6. Graduate degree
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 47. Are you currently employed?
  - 49 1. Employed
    - 2. Unemployed
    - 3. Retired
    - 4. Homemaker
    - 5. Student
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 48. Do you own or operate a farm?

If no, go to question 54.

50 - 1. No
2. Yes - If yes, continue with next question.

- 7. NA
- 8. Don't know
- 9. Refused

	49.	How many acres do you operate?
		51 - 1. Less than 50 acres 2. 50 - 99 acres 3. 100 - 249 acres 4. 250 - 499 acres 5. 500 - 999 acres 6. More than 1,000 acres 7. NA 8. Don't know 9. Refused
	50.	Did your gross farm sales exceed \$20,000 in 1984?
		52 - 1. No 2. Yes 7. NA 8. Don't know 9. Refused
	51.	Is your operation primarily crop or livestock?
		53 - 1. Crop 2. Livestock 3. Both 4. Other 7. NA 8. Don't know 9. Refused
	52.	In addition to farming, do you have an off-farm job?
If <u>no</u> , go to question 54.		54 - 1. No 2. Yes - If yes, continue. 7. NA 8. Don't know 9. Refused
	53.	Is the job part-time or full-time?
		55 - 1. Part-time 2. Full-time 7. NA 8. Don't know 9. Refused

:<sub>4</sub>,

5.

ï.

735 72

54.	Which one of	the following	groups do j	you consider	yourself a	member of	f?
	(INTERVIEWER:	READ RESPONS	E OPTIONS 1	1-6)			

- 56 1. White
  - 2. Black
  - 3. Hispanic (Puerto Rican, Mexican, )
  - 4. American Indian
  - 5. Oriental
  - 6. Other
  - 7. NA
  - 8. Don't know
  - 9. Refused
- 55. Are you married, separated, divorced, widowed or have you never been married?
  - 57 1. Married
    - 2. Separated
    - 3. Divorced
    - 4. Widowed
    - 5. Never married
    - 7. NA
    - 8. Don't know
    - 9. Refused
- 56. Finally, in 1984 was your total family income before taxes . . . (INTERVIEWER: READ RESPONSE OPTIONS 1-7)
  - 58 1. Under \$5,000
    - 2. \$5 to \$10,000
    - 3. \$10 to \$20,000
    - 4. \$20 to \$25,000
    - 5. \$25 to \$35,000
    - 6. \$35 to \$50,000
    - 7. \$50,000 or more
    - 8. Don't know
    - 9. Refused

These are all the questions I have. Thank you very much for your time and your help with our research.



## BIBLIOGRAPHY

- Anderson, James H. "The Integration of Teaching, Research and Extension in a Global Setting." In <u>Issues Facing Agriculture</u> and <u>Implications for Land Grant Colleges of Agriculture</u>. Proceedings of a workshop for deans and directors in the North Central Region. Chicago, Ill., n.p., October 1985.
- Awa, Njoku E., and VanCrowder, L., Jr. "How Extension Stacks Up," Journal of Extension 16 (March/April 1978): 19-25.
- Babbie, Earl. The Practice of Social Research. Belmont, Calif.: Wadsworth Publishing Company, 1983.
- Bagozzi, Richard P. "Marketing as Exchange." In Marketing
  Management and Strategy: A Reader, pp. 49-58. Edited
  by Philip Kotler and Keith Cox. Revised edition.
  Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1980.
- Beale, Lucrece. People to People: The Role of State and Land-Grant Universities in Modern America.

  Washington, D.C.: Office of Research and Information, National Association of State Universities and Land-Grant Colleges, no date.
- Benson, Sharon. R.L. Polk & Company. Telephone conversation, 29 May 1985.
- Berg, Herbert A. The State of Michigan and the Morrill
  Land Grant College Act of 1862. East Lansing, Mich.:
  Michigan State University, 1965.
- Blackburn, Donald J., and Vist, Diane L. "Historical Roots and Philosophy of Extension." In Extension Handbook, pp. 1-10. Edited by Donald J. Blackburn. Guelph, Ontario, Canada: University of Guelph, 1984.
- Bonnen, James T. "Technology, Human Capital and Institutions: Three Factors in Search of an Agricultural Research Strategy." Paper prepared for the binational conference on U.S.-Mexico agriculture and rural development. Cocoyoc, Mexico, 1982.

- Boone, Edgar J. "The Cooperative Extension Service." In Handbook of Adult Education. Edited by Robert M. Smith, George F. Aker and James R. Kidd. New York: The MacMillan Company, 1970.
- Boorstin, Daniel J. The Image. New York: Atheneum Publishers, 1962.
- Borg, Walter R., and Gall, Meredith D. <u>Educational Research:</u>
  An Introduction. New York: Longman, Inc., 1983.
- Boulding, Kenneth E. The Image. Ann Arbor, Mich.: The University of Michigan Press, 1956.
- Boyle, Patrick G. "Tension and Change: Extending the University." Paper presented at the national meeting of the American Association of Adult and Continuing Education, Philadelphia, Penn., November 1983.
- Brown, Sheila A. "Marketing Extension Programs." In Extension Handbook, pp. 141-149. Edited by Donald J. Blackburn. Guelph, Ontario, Canada: University of Guelph, 1984.
- Cochrane, Willard W. The Development of American
  Agriculture: A Historical Analysis. Minneapolis,
  Minn.: University of Minnesota Press, 1979.
- Cornett, Elgin M. "A Study of Public Concepts Related to the Role of Cooperative Extension Service." M.S. thesis, Michigan State University, 1958.
- Cosner, Barney L., and Key, James P. "Does the Public Know?"

  Journal of Extension 19 (November/December 1981):

  19-23.
- Coward, Raymond T. "Greater Awareness--Extension's Key to Program Success," Journal of Extension 16 (September/October 1978): 11-17.
- Cunningham, William H., and Cunningham, Isabella C.M.

  Marketing: A Managerial Approach. Cincinnati, Ohio:
  South-Western Publishing Co., 1981.
- Dick, Robert N. "Watch Your Stereotype," Continuum 43 (March 1979): 29.
- Dillman, Don A. Mail and Telephone Surveys: The Total

  Design Method. New York: John Wiley & Sons, Inc.,

  1978.

- Drucker, Peter F. Management: Tasks, Responsibilities,
  Practices. New York: Harper & Row, Publishers, Inc.,
  1974.
- Extension Committee on Organization and Policy. The Cooperative Extension Service . . . Today. 1958.
- Extension Service, United States Department of Agriculture.

  Challenge and Change . . . A Blueprint for the

  Future--Extension Service, USDA. Washington, D.C.:

  U.S. Government Printing Office, 1983.
- Fine, Seymour H. "Strategic Planning in the Marketing of a Government Program." In <u>Cases and Readings for Marketing for Nonprofit Organizations</u>, pp. 61-72. Edited by Philip Kotler, O.C. Ferrell and Charles Lamb. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1983.
- Forest, Laverne B., and Eriksson, Karen R. Extension in the '80s Surveys: Major Findings and Implications.

  Madison, Wis.: n.p., 1984.
- Freeh, LaVern A. "Public Relations--What, Why and Wow!"

  Journal of Extension 16 (November/December 1978):

  9-14.
- Gross, John G. "Farmers' Attitudes Toward Extension,"

  Journal of Extension 15 (March/April 1977): 13-19.
- Groves, Robert M. "An Empirical Comparison of Two Telephone Sample Designs," <u>Journal of Marketing Research</u> 15 (November 1978):
- Hazlitt, James R. "A Study Indicating the Future Direction of the Cooperative Extension Service in Order to Meet the Problems and Needs of the People." M.S. thesis, Michigan State University, 1961.
- Heeringa, Steven G. University of Michigan Institute for Social Research. Memorandum, 9 September 1985.
- Houston, Franklin S., and Homans, Richard E. "Public Agency Marketing: Pitfalls and Problems," MSU Business
  Topics 25 (Summer 1977): 36-40.
- Jennings, Jo Lynn. "Arkansas Residents' Perception of the Arkansas Cooperative Extension Service." Ed.D. dissertation, University of Arkansas, 1983.

- Karr, Albert R. "Reagan's Plan to Cut Extension Service
   Brings Storm of Protest in Farm Areas." Wall Street
   Journal, 21 February 1986, sec. 2, p. 42.
- Kelsey, L.D., and Hearne, C.C. <u>Cooperative Extension Work</u>. 3rd ed. Ithaca, N.Y.: Comstock Publishing Associates, 1963.
- Kindinger, Paul E. "An Analysis of Communications Patterns and Technology for State Extension Specialists--A Marketing Approach." M.S. thesis, Michigan State University, 1971.
- Kinnear, Thomas C., and Taylor, James R. Marketing Research:

  An Applied Approach. New York: McGraw-Hill Book

  Company, 1983.
- Kish, Leslie. "A Procedure for Objective Respondent Selection Within the Household," American Statistical Association Journal 44 (September 1949): 380-387.
- Kotler, Philip. Marketing for Nonprofit Organizations. 2nd ed. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1982.
- Kotler, Philip. Marketing Management: Analysis, Planning and Control. 3rd ed. Englewood Cliffs, N.J.:

  Prentice-Hall, Inc., 1976.
- Kotler, Philip. Principles of Marketing. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1980.
- Kotler, Philip; Ferrell, O.C.; and Lamb, Charles. <u>Cases and Readings for Marketing for Nonprofit Organizations</u>. <u>Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1983</u>.
- Kotler, Philip, and Levy, Sidney J. "Broadening the Concept of Marketing." In <u>Cases and Readings for Marketing for Nonprofit Organizations</u>, pp. 3-10. Edited by Philip Kotler, O.C. Ferrell and Charles Lamb. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1983.
- Knowles, Malcolm S. A History of the Adult Education

  Movement in the United States. Revised edition.

  Huntington, N.Y.: Robert E. Krieger Publishing Co.,
  Inc., 1977.
- Kratchenberg, A.R. "Bringing the Concept of Marketing to Higher Education," Journal of Higher Education 43 (May 1972): 369-380.

- Local Volunteers and Cooperative Extension Agents: Partners

  in Action. A report from the national study of the
  implications of volunteerism in the Cooperative
  Extension Service. Madison, Wis.: University of
  Wisconsin-Madison, 1984.
- Lovelock, Christopher H., and Weinberg, Charles B. Marketing for Public and Nonprofit Managers. New York: John Wiley & Sons, Inc., 1984.
- Matthews, Joseph L. "The Cooperative Extension Service."

  In Handbook of Adult Education in the United States, pp. 218-229. Edited by Malcolm S. Knowles.

  Washington, D.C.: Adult Education Association of the U.S.A., 1960.
- Matthews, Joseph L. "The Cooperative Extension Service of the United States." In Rural Social Systems and Adult Education, pp. 51-80. Edited by J. Allan Beegle. Baltimore, Md.: Waverly Press, Inc., 1953.
- McCarthy, E. Jerome, and Perreault, William D., Jr. Basic Marketing: A Managerial Approach. Homewood, Ill.: Richard D. Irwin, Inc., 1984.
- Miller, David J. "So That He Who Runs May Read". Columbia, Mo.: Agriculture Communication & Training Systems, 1984.
- Miller, Grant J. "Images, Meaning and Organizational Names."
  M.A. thesis, Michigan State University, 1973.
- Morrill Act. U.S. Code, vol. 2 (1862).
- Oren, John William, Jr. "An Appraisal by Clientele of the Ohio Cooperative Extension Service." Ph.D. dissertation, The Ohio State University, 1970.
- Prawl, Warren; Medlin, Roger; and Gross, John. Adult and Continuing Education Through the Cooperative Extension Service. Columbia, Mo.: University Printing Services, 1984.
- Ratchford, C. Brice. "Extension: Unchanging, But Changing,"

  Journal of Extension 22 (September/October 1984):

  8-15.
- Reynolds, Paul D., and Sponaugle, G.C. A Guide to Survey
  Research: How to Plan a Survey, Estimate Costs, and
  Use a Survey Research Service. Minneapolis, Minn.:
  University of Minnesota Center for Urban and Regional
  Affairs, 1982.

- Shapiro, Benson P. "Marketing for Nonprofit Organizations,"

  Harvard Business Review 51 (September-October 1973):

  123-132.
- Smith, Keith L., and Kahler, Alan A. "Iowa Adult Farmers'
  Perception of the Value of Educational Programs," The
  Journal of the American Association of Teacher
  Educators in Agriculture 23 (November 1982): 41-50.
- Smith-Lever Act. U.S. Code, vol. 2 (1914).
- Thurow, Lester C. "A World Class Economy: Getting Back,"

  <u>Technology Review</u> (August/September 1985):
- Topor, Bob. Marketing Cooperative Extension: A Practical Guide for County Board Members, Coordinators, Program Leaders, Agents and Volunteers. Cornell Cooperative Extension Service, 1983.
- True, Alfred C. A History of Agricultural Education in the United States, 1785-1925. United States Department of Agriculture Miscellaneous Publication No. 36.
  Washington, D.C.: United States Government Printing Office, 1929.
- U.S., Congress. House. Food Security Act of 1985. H.R. 2100, 99th Cong., 1st sess., 1985.
- United States Department of Agriculture, Science and Education Administration--Extension. Evaluation of Economic and Social Consequences of Cooperative Extension Programs. Washington, D.C.: U.S.
  Government Printing Office, 1980.
- U.S. Department of Commerce. Bureau of the Census. <u>United</u>
  States Census of Population: 1980. Vol. 1, <u>Number of</u>
  Inhabitants, pt. 24, Michigan.
- USDA-NASULGC Joint Committee. A People and a Spirit. Fort Collins, Colo.: Colorado State University, 1968.
- USDA-NASULGC Joint Committee on the Future of Cooperative Extension. Extension in the '80s: A Perspective for the Future of the Cooperative Extension Service.

  Madison, Wis.: University of Wisconsin, Program Development and Evaluation of the Cooperative Extension Service, 1983.
- VandeBerg, Gale L. The Cooperative Extension Service in A Report of the National Extension Committee on Organization and Policy. Madison, Wis.: The University of Wisconsin--Extension, 1979.

- Warner, Paul D. "The Cooperative Extension Service: A National Assessment." Paper presented at the Symposium on Research Needs for Extension Education. Columbus, Ohio, May 1985.
- Warner, Paul D., and Christenson, James A. "Looking Beyond Extension Stereotypes," <u>Journal of Extension</u> 21 (September/October 1983): 27-33.
- Warner, Paul D., and Christenson, James A. The Cooperative Extension Service: A National Assessment. Boulder, Colo.: Westview Press, Inc., 1984.
- Wright, Karl T. A Comparison of Farm Sizes in Michigan.
  East Lansing, Mich.: Michigan State University
  Cooperative Extension Service, 1983.