A STUDY OF THE MICHIGAN COOPERATIVE EXTENSION SERVICE WITH EMPHASIS ON FOODS AND NUTRITION PROGRAMS

A Problem for the Degree of M. S.

MICHIGAN STATE UNIVERSITY
Francisca Q. Martinez

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A STUDY OF THE MICHIGAN COOPERATIVE EXTENSION SERVICE WITH EMPHASIS ON FOODS AND NUTRITION PROGRAMS

By

Francisca Q. Martinez

A PROBLEM

Submitted to
the Dean of the College of Home Economics
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INTRODUCTION

For nearly all people, food is the largest item in the cost of living and usually the most potent factor in the influence of daily habits upon health. Wise use of food thus means much for satisfaction and welfare. To use food wisely one should have a fairly wide knowledge of food products (47). With many new products continuing to appear on the market, homemakers will need additional help in evaluating these as well as in knowing how to buy on the quality basis and by grades. Basic nutritional information is available but misinformation is rampant. With the trend toward sedentary and inactive living, accompanied by a tendency toward overweight, there is more and more need for information about proper diets.

Special food problems are apparent at various age levels. Families with young children need to know the importance of learning to eat in the first five years and of developing food habits to build health for the future. Older children and teenagers have the problem of poor eating habits. Adults in middle age and beyond have special problems.

As women continue to spend more and more time working away from homes new special problems arise. Less and less time is devoted to food preparation and meal planning. As time saving meals are more widely adopted, there is danger that good nutrition will be sacrificed for speed.

The purpose of this study was twofold: to assemble factual information concerning the Cooperative Extension Service with regard to organization, administration, and major fields of activity; and to gather descriptive information relative to the various types of foods and nutrition educational programs provided by the Michigan Cooperative Extension Service in the Home Economics-Family Living Programs in Jackson and Kalamazoo counties.

THE COOPERATIVE EXTENSION SERVICE--
HISTORICAL BACKGROUND

The United States of America possesses the largest rural adult education agency in the world. Popularly known as Extension, the full title is Cooperative Extension Work in Agriculture and Home Economics. The control is largely at the state level for an operation which is a unique cooperative undertaking shared by federal, state and local governments (6).

The central task of extension is to help people develop themselves by applying science, whether physical or social, to the daily routines of farming, homemaking and family and community living. Extension work is an out-of-school system of education in which adults and young people learn by doing, and the programs have demonstrated that social processes and social changes occur when education is applied to the rural scene (1).

Early Agricultural Societies and Agencies

Extension work had its beginning in early agricultural societies which were formed to acquaint their members with what was being done to improve agriculture, to encourage

the formation of local agricultural organizations, and to disseminate agricultural information (51). The Philadelphia Society, one of the earliest of these, was formed in 1785. In 1792 the records of the Massachusetts Society for Promoting Agriculture show that meetings were held to forward improvements in agriculture. At one time 1,000 circulars were sent out. Town clerks were asked to read them at town meetings and the aid of the clergy was invoked. These societies established fairs which were not merely for the sale of animals or farm products but for educational purposes. Competitive exhibitions with prizes were held and addresses on agricultural subjects were given and published. Farmers' clubs in New York were formed and speakers called in from outside (27).

In addition to the early agricultural societies, other agencies were concerned with education in agriculture. Columbia University and Rensselaer Institute at Troy, New York, provided persons trained in science as applied to the common purposes of life. The Ohio State Board of Agriculture was created by the legislature February 28, 1846. At a meeting of the board, its president, former Governor Trimble, introduced a resolution to appoint Professor Mather state agricultural chemist and corresponding secretary of the board, and suggested that lectures on agriculture should be delivered. Later, Dr. N. S. Townsend and three other

lecturers undertook to give a three-month course on the sciences and their application to agriculture at Oberlin, Ohio. In 1848, when the office of state agricultural chemist was created in Maryland, the act required him to deliver lectures in districts and towns (51). The clerk of the levy court or the tax commissioner were to have a copy of his lectures for publication if they deemed this advisable.

Farmers' Institutes

Beginning with 1853, farmers' institutes similar to teachers' institutes were proposed by the then president of Amherst College, Edward Hitchcock. Ten years later there was held, under the auspices of the Massachusetts State Board of Agriculture at Springfield, what might be called a farmers' institute (48). The program included discussions and lectures on the soils and agricultural resources of Massachusetts, farm crops, butter making, cattle breeding, grape culture, and a variety of related subjects.

The Kansas State Agricultural College was the first college of agriculture to set in motion the farmers' institutes followed by Iowa Agricultural College in 1871, and Michigan Agricultural College in 1876. Michigan began a series of farmers' institutes which lasted for 12 years; six regular institutes were scheduled annually (51). Coincident with these colleges, the state boards of agriculture

in New Hampshire and Vermont in 1870 and in New Jersey in 1872 established public meetings and lectures in the nature of farmers' institutes.

These institutes were held for two to occasionally five days, with forenoon, afternoon and evening sessions. The local people usually furnished the hall and looked after details of local finance. The original plan in Ohio for farmers' institutes provided that the state would send out specialists for two days and one evening to any county whose citizens would guarantee a hall, warmed and lighted; music; the help of local talent; advertising; and local expenses, including the hotel bills for outside speakers (27). Under the Wisconsin system the state superintendent of farmers' institutes arranged the programs, selected the lecturers, did the advertising and had general charge. Women had a part in the Wisconsin institutes from the first. Papers included in the first bulletin were on butter making, the dairy, fastening ends and binding edges, and education of farmers' daughters. Under the title of "cooking schools," separate sessions for women were sometimes held at which the nutritive value of different foods was explained and methods of preparing various viands were demonstrated (51). These sessions required a separate hall and dishes in which the products of the cooking might be sampled by the audience.

The national significance of the farmers' institute movement was recognized at Watertown, Wisconsin, on March 13, 1896. At the second meeting of this organization, the relation of farmers' institutes and college extension work to the Department of Agriculture was discussed and Kenyon L. Butterfield suggested pecuniary aid by the national government to land grant colleges for agricultural extension work. The idea of systematic, long-continued and thorough instruction to the farmers the year through was commended by Butterfield as the goal of the work (27). From its establishment in 1888 the Office of Experiment Stations recognized the importance of the farmers' institutes as agencies for the dissemination of the practical results of agricultural experimentation. Professor John Hamilton, who was appointed as specialist in the Office of Experiment Stations in 1903, realized the value of farmers' institutes; but he desired to supplement the institutes with work of permanent educational value. The state agricultural college through its extension department was to organize and supervise short courses under his plan.

By 1899 farmers' institutes were reported in 47 states with a total attendance of over 500,000 farmers (48). In 16 states the institutes were connected with the State Department of Agriculture. In 19 southern and western states they were directly under the auspices of the

agricultural colleges or experiment stations. Women were encouraged to take part, and the number of women lecturers gradually increased. In 1903-1904 in New York, school children were especially invited and programs arranged for them. About the same time prizes for exhibits by young people were offered by the institutes in Indiana.

The passage of the Smith-Lever Extension Act of May 8, 1914, and its acceptance by all the states radically changed the status of farmers' institutes. The Federal authorities charged with the administration of that act discouraged the use of Smith-Lever funds for the ordinary type of farmers' institutes.

Early Extension Programs

Along with their participation in farmers' institutes, the agricultural colleges independently undertook various forms of extension work such as field demonstrations, cooperative experiments, extension lectures, reading courses of popular bulletins, traveling libraries, assistance to granges, boys' and girls' clubs, nature study, garden clubs and surveys.

The Chautauqua System

In undertaking extension work in a systematic way the agricultural colleges were influenced by two movements for supplementary education of adults, which were actively promoted during the latter part of the nineteenth century. The most popular and widespread of these movements was the Chautauqua system (51). This movement began with the foundation of the Chautauqua Sunday School Assembly in 1874 by Lewis Miller and John H. Vincent. This assembly met for ten days in August at Chautauqua Lake in New York. The program was a combination of instruction, recreation and entertainment. The number of subjects studied increased from year to year and the sessions were lengthened. The Chautauqua Literary and Scientific Circle was organized in 1878 which had a council in whose membership were Lyman Abbott and Edward Everett Hale. Home readings extending over four years were organized and planned. Each year's course consisted of four books and twelve numbers of a special magazine. Correspondence courses were initiated in 1883 and continued for many years. Interest in the movement was maintained by the well-attended annual assemblies at Chautauqua Lake and by similar meetings organized independently in various parts of the country.

The Agricultural Colleges

The system of university extension which started in England in 1866 was introduced in the United States through city libraries, especially in Buffalo, Chicago and St. Louis (51). By 1890 this system had received sufficient attention to warrant the organization of the American Society for the Extension of University Teaching. The State of New York began the organization and supervision of university extension. In 1892 the University of Chicago included provision for university extension in its original plan of organization and began the employment of a staff for this purpose. That the agricultural colleges were influenced by the university extension movement is shown in some of the programs of their association. Professor Voorhees outlined the agricultural extension work begun in Rutgers College in 1891 which included courses in six lectures each on soils and crops, feeding plants and animal nutrition.

In Ohio the board of trustees of the state university employed as superintendent of extension work A. B. Graham. He began work in July, 1905, and during the first four years much attention was given to boys' and girls' club work. Various types of extension work began in Illinois, Kansas, Iowa, New York, Michigan and other states. The broadening of extension work of agricultural colleges and its rapid development created a desire for a more systematic

organization. This desire was expressed at the meeting of the Association of American Agricultural Colleges and Experiment Stations in 1904 by Kenyon L. Butterfield, who said,

> This work will not only be dignified by a standing in the college coordinate with research and the teaching of students, but it will rank as a district department with a faculty of men whose chief business is to teach the people who cannot come to the college.[1]

Four years later the committee on extension work of the Association of American Agricultural Colleges and Experiment Stations renewed its recommendation that the land grant colleges make a definite organization for their agricultural extension work "by creating a section of extension work."[2] Between 1910 and 1914 the work grew in extent and complexity. The reports of the association showed an effort to develop strong programs coordinated with the subject-matter departments so that the teachings in the field would conform to those in the college as a whole.

Cooperative Demonstration Work

The originator and leader of this movement was Dr. Seaman A. Knapp. He exerted a powerful influence toward the organization of extension on the present cooperative basis

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[1]Alfred C. True, A History of Agricultural Extension Work in the United States - 1785-1923 (Washington, D.C.: United States Government Printing Office, 1928), p. 48.

[2]Ibid., p. 52.

and contributed a method of teaching still basic in its operations. He was sure no farmer could be talked into a new method, but he was equally convinced that the farmer would grasp new principles and methods if their value was demonstrated in terms of the conditions with which he himself was familiar.

> Aside from the conditions which made the demonstration system peculiarly applicable to the then-existing situation in southern agriculture and country life, it brought to light certain fundamentals which permanently enriched agricultural extension work. The most important of these contributions were (1) the emphasis laid on the active participation of the farming people in demonstrations conducted for their benefit and (2) the establishment of the county agent system, under which farming people make use of trained official helpers permanently located near them, from whom they may receive the useful knowledge possessed by these agents and also instruction from the institutions which the agents represent.[3]

Farm Management Extension Work

The Office of Farm Management was organized in the Bureau of Plant Industry in 1906 to conduct on an enlarged scale work begun by that bureau several years earlier. This office had authority and funds to investigate and encourage the adoption of improved methods of farm practices (51). Agents were placed in districts, usually comprising two or more states, to investigate farm management problems and to

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[3] Ibid., p. 73.

study the prevailing types of farming. Distribution of bulletins, farmers' institutes, newspaper publicity, demonstration tests, and field meetings on typical farms were some of the extension methods used to encourage the wider adoption of the more profitable types of farming and improved farm practice. Within a few years all the states were included in this work which was conducted in cooperation with the agricultural colleges and experiment stations and, wherever possible, with organizations of farmers.

In county extension work, the Office of Farm Management stressed each agent's studying the business of farming in his county in order to know the agricultural situation and the needs of the farmers, and urged basing the extension program on the needs revealed by such studies. Through special state and Federal farm management demonstrators, county agents were taught to analyze the business of farmers, to determine the strong and weak points of the farm system, and to aid the farmer in making needed adjustments.

While the demonstration work was successfully developing in the South, there was a growing demand for full-time extension service to farmers in the North and West. The county agent work developed under different auspices and organizations in the northern and western states. The first county agent was permanently established in Broome County, at Binghamton, New York, on March 1, 1911 by the Chamber of

Commerce. The Pennsylvania State College in cooperation with the Office of Farm Management appointed four county agricultural agents in 1912.

The Better Farming Association in North Dakota was organized in 1912 and in two counties agents were hired. A woman was employed as field agent and promoted the installation of home conveniences, rearrangement of kitchens and better sanitation.

Wisconsin county agent work began in 1912 under the direction of the college of agriculture and the experiment station of the University of Wisconsin. The distinctive features of the Wisconsin plan were close connection with the county agricultural and teacher training schools and entire support by public funds (27).

The state of Colorado passed an act in April, 1913, authorizing county commissioners, on petition of 100 taxpayers or farmers to appropriate public funds for a county agriculturist, subject to the approval of the State Board of Agriculture (27).

In Indiana the beginnings of county agent work were closely connected with the activities of the agricultural extension division of Purdue University established in 1911. The relation of the agents with the public schools was quite intimate. Their work was also supported by better farming associations, farmers' institute associations, farmers' clubs, granges, and other groups.

Allied Extension Programs

Two closely related extension programs, 4-H Club and Home Demonstration programs, have made a significant contribution to the total Cooperative Extension Service.

The 4-H Clubs

The 4-H program was instituted in 1914 with the passage of the Smith-Lever Act. However, the actual groundwork began in 1900 when progressive educators were introducing nature study in the school curriculum. Extension's expanding work with older youth is providing constructive educational experience for young men and women beyond 4-H club age.

Agricultural extension work with juniors was started by W. B. Otwell, president of the county institute in Macoupin County, Illinois, in 1900 (48). He distributed especially selected corn seed to 500 boys who grew it and made exhibits at the institute.

Under the inspiration of Dr. Liberty Hyde Bailey, junior naturalist clubs and other clubs were organized in rural schools (41). Dr. Knapp, impressed with the work of these clubs, began boys' clubs to demonstrate corn growing and crop rotation in his fight against the boll weevil.

Girls' canning clubs in the South were first organized in Aiken County, South Carolina, in 1910 upon the

suggestion of O. B. Martin, an assistant to Dr. Knapp (48). Each club girl grew one-tenth of an acre of tomatoes and was taught not only how to grow tomatoes but how to can the surplus. The work was expanded in 1911 and 1912 to include two or more kinds of vegetables or fruits, and a few poultry clubs were organized.

With the passage of the Smith-Lever Act, O. H. Benson, associate of Dr. Knapp, was placed in charge of boys' and girls' club work for the northern and eastern states. Benson furnished the inspiration for the name "4-H," the motto which stands for Head, Heart, Hands and Health, and much of the plan of organization that followed (27). From nature study, to corn and garden clubs, to boys' and girls' clubs, the 4-H program has increased in scope to include projects in numerous subject matter areas.

According to Martin the main purpose of 4-H club work is:

> . . . the development of boys and girls through self-help programs and the improvement of farm, home, and neighborhood practices in such a way that both rural and urban youth are brought into touch with the best of each environment and helped to make themselves efficient, public spirited, and useful citizens.[4]

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[4]Theodore T. Martin, The 4-H Club Leader's Handbook (New York: Harper and Brothers, 1956), p. 3.

Home Demonstration Programs

Through the effective work of the home demonstration agents, extension has helped homemakers to understand how to save time and energy, how to clothe their families suitably and economically, how to furnish and decorate their homes in good taste and within their incomes, and how to develop attractive home surroundings. As early as 1912, food and nutrition extension service work was taken into the home. Demonstrations on methods of food preparation and talks on food values were given. Such activities assist homemakers to develop confidence and pride in their contribution to family living.

The home demonstration work of the South grew out of the girls' club work. The year 1913 generally marks the beginning of extension work with adult homemakers, Negro as well as white. The home demonstration agents through their work with members of the girls' club found opportunities to aid the women with whom they came in contact.

Extension work in home economics began in New York state under the leadership of Martha Van Rensselaer who went to Cornell University in 1900 (27). By 1914, a home demonstration agent was appointed in Erie County and Utah began work in 1915. World War I brought the appointment of many emergency agents in counties and cities. At the end of the war, the work was put on a permanent basis as funds and

trained personnel became available. By World War II, with the trained staff and local leaders available, a magnificent task was performed in the whole area of home economics (6).

Brunner and Yang refer to the home economics clubs as follows:

> Partly because of the nature of the program, partly for other reasons, the work in home economics extension has from the outset been organized largely on a neighborhood or community basis, usually in clubs of twelve to twenty-five women. Each such group elects the usual officers and plans its own program. Refreshments and a social hour are a usual feature of club meetings, in addition to the demonstration or other educational program.[5]

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[5]E. de S. Brunner and Hsin-Pao Yang, Rural America and the Extension Service (New York: Columbia University, 1949), p. 37.

THE EXTENSION SYSTEM IN OPERATION

The Cooperative Extension Service is a democratic educational arrangement among the people in the counties, the state land grant institutions, and the United States Department of Agriculture (7). Extension Services for each state, Puerto Rico, and the United States Department of Agriculture are bound together through agreements in line with the basic federal extension legislation, the Smith-Lever Act.

The purpose of Cooperative Extension Work, as stated in the original act is ". . . to aid in diffusing among the people of United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same."[6] This act further stipulates that

> . . . agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges

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[6] Federal Legislation, Regulations, and Rulings Affecting Cooperative Extension Work in Agriculture and Home Economics, U.S.D.A. Miscellaneous Publication 285 (January, 1946), p. 7.

> in the several communities, and imparting to such persons information on said subjects through field demonstration, publication and otherwise.[7]

Organization

The organizational plan of state extension services may be classified into distinct types. In some states the dean of the college of agriculture is also director of the Cooperative Extension Service. As a variation of this the dean is also director with an assistant, associate, or vice-director in operational charge of extension work. In other states the director of extension is responsible to the dean of the college of agriculture.

Another type of organization is found in the university with state colleges of agriculture and home economics. The director of extension is responsible jointly to the deans of both of these colleges for their cooperative extension work. At certain state colleges the director of extension is responsible to the president of the institution. This director may also be responsible for all extension programs offered by the institution, general and cooperative (27).

State extension services are organized to help the county extension services perform their respective functions.

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[7] Ibid., p. 8.

Directors, supervisors, and county extension agents comprise the organizational line of control through which pass the administrative and supervisory responsibilities of the service. These are:

> organizing the service for most efficient work; personnel selection; training and management; determining and carrying out policies; developing programs and making plans to carry out the purposes and objectives of the program; evaluating the effectiveness of the organization and of the work to the public; arranging for funds to finance the work; establishing and maintaining satisfactory relationships between the college and the county cooperating groups; and reporting to officials and to the public.[8]

Methods of teaching, presenting information, and organization, as well as subject matter, are some areas of specialized help needed by a county extension service. Such assistance is given by the state extension service through its staff organization composed of specialists in various subject matter fields. These specialists keep county workers informed on research developments and interpret data for applications toward the improvement of farm, home and rural conditions. The specialist performs a staff function and is not responsible for administrative matters. He reports to the state director or to the head of his subject matter department, or to both.

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[8]Lincoln D. Kelsey and Cannon C. Hearne, Cooperative Extension Work (3rd ed.; Ithaca, New York: Comstock Publishing Associates, 1963), p. 47.

> The state Extension Service includes a group of offices whose functions are to service the operation of the entire organization. Accounting and editorial offices are examples of these auxiliary offices. Functions performed by personnel in such activities as information, radio, visual aids, and exhibits are similar to those performed by other specialists when they are training county workers.[9]

The director is responsible for evaluating the results of the program and the work of the staff. This requires an evaluation procedure under the guidance of a specially trained staff member who is responsible to the director.

In addition to the memorandum of agreement between the land grant college and the United States Department of Agriculture, there is also an understanding between the state and counties for the conduct of extension work in each county. The basic administrative unit of the Cooperative Extension Service is the county (7).

The cooperating group within the county may be the informal leadership through which county agents work; it may be a definite organization which has a legal basis for cooperation; or it may be the governing body of the county. This group has either legal or implied responsibilities for jointly directing the work in the county with the state extension service, determining budgets, providing the local funds necessary to finance the program, and carrying out agreed plans.

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[9] Ibid., p. 48.

There are at least three plans to obtain the necessary administrative direction. One of these is the designation by the state director of one of the agents to be county director or to have a similar responsibility (27). Another plan is to consider the agents in the county a committee with one agent named as chairman. The function of the chairman is to obtain coordinated action. The third plan is for administration to clear through each agent directly, depending upon frequent consultations to avoid confusion.

The rural leadership of the county and community is a definite part of the extension organization. This sponsorship is furnished by rural leaders either informally or formally, depending on the state laws dealing with cooperative extension work.

The Extension Service of the United States Department of Agriculture mobilizes, interprets, and prepares the resources of the department for the use of state extension services. Among the other functions of the national extension service are obtaining and organizing active cooperation and support of regional and national groups. The appointment of each state director of extension has to be approved by the Department of Agriculture and also cooperative projects that involve the use of federal and federal-offset funds (10).

The Administrator of the Extension Service of the United States Department of Agriculture is responsible to the Secretary of Agriculture. He has persons under his direction to help him carry out the functions of the Cooperative Extension Service. These administrative, supervisory, and specialized personnel assist the state extension services in those fields that relate to the work of the national extension service.

Thus, the Cooperative Extension Service organization has three major units: the county, the state, and the nation. Each has an organizational pattern adapted to the work of the unit. Three lines of work run throughout--administrative, supervisory (specialized and general), and educational services.

Finances

The cooperative feature of extension work is well illustrated in the way it is financed. Federal, state, county, and individual funds are all a part of the total extension budget (27). The framers of the original extension legislation held fast to this principle. Another principle authorizing extension appropriations is that funds are allocated according to the size and nature of the job to be done.

Extension financing from funds of federal origin is based upon the original cooperative extension legislation--the Smith-Lever Act. All major bills appropriating federal funds for extension passed since the Smith-Lever Act have been for the purpose of furthering the development of cooperative extension work as inaugurated under its terms.

There are four main features in the determination of allocations in present federal laws providing grant-in-aid funds to states:

1. A flat amount to each state which helps provide at least a minimum skeleton extension setup for each state
2. Division according to farm population, which appears to favor certain states
3. Division according to rural population, which appears to favor certain other states
4. A fund appropriated to the Secretary of Agriculutre for allocation in accordance with relative need.[10]

In addition to these basic acts developing the Cooperative Extension Service, appropriations of funds are made by Congress for the administration and coordination of extension work by the Secretary of Agriculture through the Extension Service of the United States Department of Agriculture.

Under the amended Smith-Lever Act of June 26, 1953 (Public Law 83), various appropriations and acts were consolidated, according to the pattern existing in 1953.

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[10] Ibid., p. 60.

The source of funds from within the states further demonstrates the cooperative principle of extension work. States, counties and farmer groups have furnished approximately half the funds and the federal government half (10).

State legislative appropriations are, in most cases, made to the land grant institutions for expenditure for cooperative extension work. These funds are handled by the fiscal departments of the land grant institutions at the direction of the state director of extension.

County funds are either appropriated to and administered by a county cooperating sponsoring board or group, or are appropriated and administered by the governing body for the county. In some states county funds are turned over to the state extension service for administration. These states either pay all county agents from such funds, or make allotments to county sponsoring groups for administrative approval.

Funds from farm organizations and other contributions are handled by the local sponsoring group. The use of funds from private sources in the development of extension work dates back to its origin under a grant from the General Education Board. Businessmen and industrialists have continued to express their interest and support in terms of financial contributions. The encouragement and acceptance

of such funds is entirely proper when used in a broad educational program devoted to the total public interest.

Extension Relationships

Government agencies with which extension deals are at all levels--federal, regional, state, district, county, and municipal. Federal agencies include the United States Department of Agriculture, with its numerous bureaus. Relationships may be on a national basis or at state or county levels. State agencies may be typified by state departments of agriculture. District agencies may vary in size from a single county or even a part of a county up to several counties. County agencies may be typified by the county school system.

Governmental agencies with which extension has relations perform a wide variety of kinds of work, such as administration, research, education, regulation, and service (52). In the administrative field, state directors of extension and their assistants have to deal with the Extension Service of the Department of Agriculture, the board of trustees and the higher administrative officers of their state colleges, and with county boards of supervisors, commissioners, and trustees.

In research, the principle agencies concerned are the state experiment stations and the research bureaus of

the United States Department of Agriculture. In education, there are such agencies as the Federal Office of Education, with its broad supervision of vocational education, state departments of education, county superintendents of schools, and even local school boards. Regulation may be at practically all levels and service may be at several levels, as in the case of the Farm Credit Administration, with federal staff, the 12 districts, and the local associations (27).

The extension service also has relationships with all the organizations concerned with rural welfare. These may be composed of farmers and city people or both. As the number and type of organizations affecting farmers increases, the extension service is in the same position as it is with regard to all improved practices. The work of the extension service is educational and as such its chief function is to help people help themselves through teaching, technical advice, and leadership opportunities.

Emergency Functions

In cases of emergency or disaster, the extension service assumes the leadership in calling the representatives of the various agencies, both public and private, together on state and county levels, depending on the extent and area affected to plan constructively. When the area affected covers more than one county, the director of extension may

wish to confer with the governor of the state on the quickest and best method of procedure. Speed is the important element of action, but good relationships should be maintained by avoiding duplication of effort and assumption of responsibility that belongs to others.

Droughts, floods, war, and other disasters multiply the problems of farm people and bring heavy demands on the extension service. Many of these have been well met while others are such that the Service is neither equipped nor authorized to meet. The extension service carried heavy nationwide responsibility during World War I and World War II (6). To produce more and more food as a wartime measure called for a more extensive application of the educational and demonstrational methods used by extension workers, who taught not only to produce but to eliminate waste, and to conserve and preserve food that was being produced.

Major agricultural emergencies, such as the worldwide depression which occurred between the two World Wars, require group action which may be expressed in legislation providing for governmental agencies to expedite public effort. The Federal Farm Board, the Agricultural Adjustment Administration, the Rural Electrification Administration, and the Farm Credit Administration are examples of efforts through legislation to cope with rural problems requiring governmental aid and group action. The extension service,

since its early years, has been helping people recognize and discuss problems for which legislation of this type was intended. The extension service has also been called upon to assist rural people in using the national resources made available through such legislation (6).

This educational work has helped farmers understand emergencies and has brought to the foreground long-standing difficulties. Emergency situations crystallized a popular demand to do something about these long-term farm problems.

HOME ECONOMICS EXTENSION PROGRAMS IN MICHIGAN

When the Smith-Lever Act was passed in 1914, Michigan already had many extension agents out in counties, and Director Baldwin was on the job in East Lansing (2). The organization grew and developed like others, concerned with the problems of the farmer and his family. Most of the people in Michigan at that time were members of farm families.

"If farmers cannot come to us, we will take the college to them," so said the pioneers in the field of scientific agriculture as they searched for more effective tools and methods to use in bringing the results of early research to the farms and homes of Michigan people (11). The first organized extension-type activity was conducted in 1876 by the faculty of the Michigan Agricultural College, now known as Michigan State University. The Cooperative Extension Service of Michigan is a division of the state university and is supported jointly by federal, state, and county funds. The purpose of the university through the extension service is to cooperate with the counties and communities of the state in developing and carrying forward a broad educational

program inclusive of economic, cultural, social, and recreational needs of rural people (16).

In 1920, rural population had fallen below the 50 per cent fraction, and by 1930 had declined to less than one-third of the total (12). The United States Bureau of Census reported the population of Michigan as 7,823,194 on April 1, 1960 (53). Eight per cent of the population were farmers. The population is growing rapidly and it is undoubtedly in excess of eight million today. A shifting population, increased industrialization, improved transportation and communication facilities, and larger size and fewer numbers of schools, farms, businesses, and other organizations demand changes in the way people live. To cope with this changing situation, Michigan State University has reorganized its Cooperative Extension Service (35). The staff has made a study of the past and the present in order to forecast trends leading into the future.

Instead of the three traditional Cooperative Extension areas of agriculture, 4-H, and home economics, there are five broadened programs:

1. Agricultural production and management and related natural resources
2. Marketing and utilization of agricultural and forest products
3. 4-H and other extension youth programs

4. Home economics-family living

5. Community resource development and public affairs.[11]

The Cooperative Extension Service of Michigan has as its objective ". . . to plan, design, and implement educational experiences to bring about the greatest possible continuing behavioral advancement in people" in the fields mentioned above. The specialists at Michigan State University and the county extension staff translate research information and basic facts into practical knowledge and improved practices to help families and communities adjust to the changing times. Each county program has all five program emphases.

The home economics-family living program of the Michigan Cooperative Extension Service is a significant part of the total county extension program. The focus is on families, even those in the farthermost corners of the county. The program makes available the kinds of knowledge and assistance with regard to homes and family living that their situation demands (13). Through this program, guidance is given to individuals, families, and communities in their

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[11] Michigan Extension Agents Face the Challenge of the Changing Community, Community Resource Development and Public Affairs Publication No. 2 (East Lansing: Michigan State University, Cooperative Extension Service), p. 2.

growth toward maturity, improved decision management, and self-fulfillment. The information is unbiased, factual and frequently stems from research. The home economist interprets this and relates it to the everyday problems of the family.

The home economics-family living program is designed:

1. To help homemakers become more efficient in the development, operation, and management of their homemaking jobs
2. To help homemakers become more effective in building good relationships within the family and in the community
3. To help homemakers be well-informed consumers so they can manage wisely the income and resources available,
4. To help homemakers recognize and accept personal responsibility, and to respect individual differences
5. To help homemakers have a clearer understanding of community, state, national and world affairs and their role as citizens
6. To offer opportunities for participation which will lead toward personal and leadership development of the homemakers.[12]

The home economics-family living program includes home economics subject matter such as foods and nutrition, clothing and textiles, family life, home management, housing,

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[12]The Scope of the Home Economics Extension Program of the Michigan Cooperative Extension Service (East Lansing: Michigan State University, Cooperative Extension Service, 1964), p. 3.

consumer marketing, public affairs, and other areas that pertain to family living (14).

Foods and Nutrition Programs

There is a growing realization of the important role that nutritious food plays in health and in the social efficiency of people. Many people, even those in countries with an abundance of food and with high levels of consumption, do not have adequate diets. In this country the Department of Agriculture, with its renowned scientific staff and educational facilities, has turned to nutrition in the belief that better diets would contribute not only to the general welfare but also to the solution of the agricultural surplus problem (46).

Obstacles to better nutrition other than income and relative prices include such things as food habits, cultural patterns, childhood training, and inefficient food purchasing, preparation, and management (9). The food selection of most people depends on habits, many of which may have developed in childhood. Because habits of food selection and eating begin to develop in early childhood, parents have a responsibility to help children develop good eating habits (34).

People tend to be guided automatically by their habits. They like the foods to which they are accustomed.

Most people either do not know, or do not care, that the body has certain requirements which must be satisfied by foods. The intelligent way to select food is to know about the requirements and to know which foods should be used to meet the needs. One of the most effective ways of improving nutrition is by education (3).

With the trend toward an increase in the numbers of women being employed outside the home, special consideration needs to be given to planning--not just menus, but also the storage of food, equipment and supplies (40). In 1954, one out of four women was gainfully employed out of the home (31). The modern machine age has practically revolutionized ways of work and ways of home living, and has made a difference in the amount of work to be done in the home. More new equipment and labor-saving devices constantly are being made available to the homemaker today. They all affect the working schedule in the home since their efficient use will cut the time spent in food preparation as well as in other operations in the home.

Program Planning and Promotion

Every year a unified state program plan is prepared by the extension specialists which includes some of the more distinctive activities bearing on objectives which seem especially important. While it in no way directs the operations or plans of any county program, this is intended to

serve as a document of influence. Members of county extension staffs are independently responsible for developing their own plans of work.

A unique feature of the county extension program is that it is planned within the county, cooperatively, by the county extension service staff, local people, and others. Experienced extension workers know that the most successful programs are those built on actual situations. They try to find the wants, needs and problems of people, of a farm or family, or a community, before going to work. Those are the working objectives without which effective extension teaching cannot take place (27). Thus, local progrmas are based on local needs as expressed by the people themselves. Usually the topic is not repeated unless specifically requested by the group members.

Like all adult education, extension teaching differs from classroom instruction (36). Extension teaching grows directly out of the needs and interests of the people. There is no rigid pattern or curriculum to be followed, and participation in the program is wholly voluntary.

Home economics extension groups study different lessons each year, but there are topics that are continued the following year until these are thoroughly investigated.

The 1965 program on foods is approached from the theory of nutrition, food management and how various

principles apply and is unlike the earlier programs when women were concerned mainly with recipes and the mechanics of cooking and cleaning.

Extension staff members give professional leadership and training for organization maintenance and development, subject-matter content, and extension of knowledge to others (30). Homemakers enrolled in home economics extension groups, 4-H leaders, and others gain information in planning and selecting meals of high nutritive value to help improve family eating habits to make the most of their meal money.

Programs for Jackson and Kalamazoo Counties

Since food is a necessity for every family, its selection and preparation to meet adequate nutritional requirements are a part of the local program in practically every county. A review of the annual reports (17, 18, 19, 20, 21, 22, 23, 24, 25, 26) on the foods and nutrition educational programs provided by Jackson and Kalamazoo county cooperative extension service during the past five years showed the home agents teaching about or otherwise assisting in the improvement of food supplies and of diet patterns for home economics extension groups and for low-income mothers.

Foods and nutrition lessons are planned to serve two purposes. First and most important, is the subject matter; second, is what might be called the cultural side. This is

carried out during the noon hour with the luncheon which is planned to emphasize the main points of the day's lesson. Care is taken in the way in which the meal is served and in the assigned table decorations which are generally in keeping with the season.

In Jackson county, there are 40 home economics extension groups with 670 members as of January, 1965. Kalamazoo county has 65 rural and urban home economics extension groups with a membership of 950. These organized extension groups meet each month for a study program which covers all phases of family life.

For July 1, 1960 to June 30, 1961, the foods and nutrition program in Jackson county was designed to inform families of the latest research in foods and nutrition which directly affected them (17). The home agent met with extension groups and also with two groups outside extension and helped with the discussion on "Food Facts."

Radio was used in a continuous effort to promote better nutrition based on more adequate knowledge of the individual needs. There is a constant reaching out by women for this type of information especially as it affects the health and welfare of their families.

For the same period, 1960-1961, in Kalamazoo county, "Food Laws and Fads" and "The New in Foods" covered agencies whose duties make sure food is wholesome and honestly

described (22). "What's New in Food Products Development" was also discussed and much interest was shown in the new products which were displayed. "Casserole Cookery" was another lesson that was taken up during the leader training meetings. The importance of considering the protein content of casserole dishes was emphasized aside from the role of protein in the modern American dietary.

The training of local leaders is of great importance in organizing any program to improve community conditions. In extension work many people are needed who can teach others the practices and skills called for by the program. Often those who teach them best are those who helped plan the program.

For the following year, 1961 to 1962, the home agent in Jackson county filled requests for a resource person or speaker on the subject of teenage nutrition (18). Leader training lessons were held both for extension women and 4-H leaders on this subject. Persons were selected from the extension groups who had teenagers in their homes. Two meetings were held at which teenage nutrition problems were considered. Included in the discussion were the physical, psychological, and social needs of this age group.

"Scandinavian Foods and Customs" was presented at the training centers in Kalamazoo county for 1961 to 1962 (23). Recipes for 17 different Scandinavian foods were

assigned various groups. The Home Economics Extension Council received the food as it came in, baked or finished last-minute assembling, garnished the food and placed it on the Smorgasbord table. This was done while the agent presented the lesson which also emphasized the food similarities and nutrition problems.

"Adding Zest to Vegetables" was introduced and carried over the following year. The series of lessons, "Designing Meals for the Push Button Age," for a group of brides and brides-to-be was postponed due to inability to get them together.

In accordance with the program plan for 1962 to 1963 in Jackson county, leader training lessons on "Your Money's Worth in Meats" were given by the home agent using the materials from the marketing agents plus the refrigerated meat truck from Michigan State University (19). Different cuts of meat were identified in these lessons and values for each cut compared. Another series of lessons, "The Art of Salad Making," emphasized the nutritive value of salads and the use of less common foods.

The extension group in Jackson also worked with families on welfare. In an effort to help families help themselves, a series of lessons was given on meeting health problems and preparing nutritious meals from the surplus foods. Because of limited knowledge in the preparation of

meals, some food is wasted and has even been found in the garbage cans of recipients.

The program plan for 1962 to 1963 in Kalamazoo county called for the continuation of the leader training lessons on "Adding Zest to Vegetables." This emphasized the mineral and vitamin content of vegetables and the need for including a wide variety in everyday meals. A luncheon featuring various assigned vegetable dishes brought out different ways of preparing them for family appetite appeal. Lessons on "Getting the Most From Your Food Dollars" were also introduced to help homemakers understand their roles as consumers and to be informed in the choices they have to make (24).

Leader training lessons on "Food and People" for the organized groups and 4-H leaders in Jackson county were given by the foods and nutrition specialists as planned for 1963 to 1964 (20). A study of the food needs of all nations was undertaken and also on the organizations presently working toward the goal of adequate food for all. The cultural influence of food was included in these lessons.

"Using Surplus Foods" was one of eight lessons given to low-income families in Jackson county. Welfare recipients were assigned to the class by the Department of Social Welfare. Food distributed was flour, corn meal, butter, whole wheat flour, peanut butter and dry milk powder. The

lesson included storing surplus foods, preparing appetizing meals from them, simple nutrition information, and serving adequate diets to children.

Likewise, in Kalamazoo county, "Food and People" was studied that year to establish an awareness of the major role food plays in the world (25). This concerned problems of hunger and malnutrition which affect more than half of the world's population.

"Adding Interest to Meals with Herbs and Spices" was taught to the homemakers in Kalamazoo to gain information on methods of adding interest to everyday meals. "More Milk in Meals" was another lesson which covered the kinds of milk and nutritive values as well as the needs for milk by persons of different ages and state of health. New and different ways of using milk were brought out in the luncheon foods which were prepared and served.

The Jackson county program plan for 1964 to 1965 included lessons on "Weight Control and Prevention of Overweight," "Meals with Meaning," "Guard Against Food Misinformation," and "Cooking With Your Hat On." In the first lesson, health implications in relation to weight were considered aside from determining adequate and interesting meals which meet individual needs.

"Meals With Meaning" was taught to organized groups, 4-H leaders and low-income mothers who attended the classes

at the YWCA. The principles of preparing meals which satisfy and appeal were discussed in this lesson and an understanding of individual needs which are involved in feeding a family.

The lesson on "Guard Against Food Misinformation" emphasized food advertising and evaluating the source. A study of the agencies working in food safety was also included in this lesson. The last lesson taken up for that year, "Cooking With Your Hat On," was directed to working women and busy homemakers. Because many more women are working and have less time to spend on meal planning, food selections and preparation, they are concerned about whether their families are properly fed. Planning nutritious meals for their families, considering semi-prepared foods and prepared foods in regard to cost, time of preparation and family acceptance were all taken into account. Also, techniques for planning ahead and use of the freezer were discussed.

"Food and People" was the third lesson in a series which covered a two-year period in Kalamazoo county (26). The major nutrition problem of obtaining enough food to sustain life and for normal activity and health for more than half of the world's population was again pointed out.

"Making the Most of Your Meal Money" gave information and suggestions for using limited resources to provide

healthful and attractive meals. Another lesson included for that year was "Food and Customs of the Far East." This was primarily devoted to the rice eating populations of China and Japan. Representative dishes were prepared and served by the homemakers for this lesson.

Adoption of Practices

County activities provide an excellent opportunity to publicly demonstrate principles of good meal planning, buying, preparation and serving which have been learned through the years. This was recognized at the events which were planned, prepared and served by the Home Economics Extension Council and council representatives from the different organized groups in Jackson and Kalamazoo counties. The long-time results of good nutrition training has also paid off in the improved health of some families in these two counties.

Caseworkers who made calls in the homes of women who attended family living classes sponsored by the YWCA in Jackson reported that there had been improvements in their homes and in their living after taking the course. Former members of the class were using their surplus foods and attempting to prepare better meals for their children. The classes benefited homemakers and the children in these families have a better chance through their mothers' efforts.

Mass communication media enable extension workers to greatly increase their teaching effectiveness (5). Meetings and personal visits will not do the job effectively. Mass communication media provide a means for reaching thousands of people readily. However, there is a need to know when mass media methods are most effective. Mass media have their greatest impact in the awareness stage of adoption (44). The more ways through which people are exposed to extension information--meetings, demonstrations, bulletins, news stories, radio talks, personal visits, and other teaching methods--the larger their acceptance of recommended practices.

Evaluation of Programs

Extension education programs, if they are to reach their full potential of effectiveness, must be periodically measured against the reasons for doing extension work to see what progress is being made. Such measures provide workers with guides to changing their methods to meet new problems or opportunities, or to be more effective in meeting old ones.

Foods and nutrition programs, like other educational programs, require periodic evaluation and revision. Specific goals or objectives for each phase of the work should be established whereby progress can be measured and the program revised to meet unforeseen conditions and changing circumstances.

Measurement of extension effect should serve to show accomplishment of the program to the present time. The Smith-Lever Act clearly defines the goal of extension work as the diffusion of useful and practical information and the application of the same. Others have variously stated this basic goal as to bring about changes in what people do, and changes in their knowledge, interests, understandings, attitudes and skill (45) or, to improve the quality of family and community living as it relates to agriculture and home economics (33).

Wilson and Gallup cite a definition of education as the "production of changes in human behavior."[13] Axinn points out that extension involves changes in behavior of three types: thinking, feeling and action behavior (2).

Since students of extension education generally accept as the goal the change of human behavior, and recognize within this goal the several types of changes that are sought, this then will be the reason for extension work and the goal toward which progress will be measured.

Raudabaugh relates this goal to a measuring process when he defines evaluation as the "process of determining the degree to which desired behavioral changes have taken

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[13]Meredith C. Wilson and Gladys Gallup, Extension Teaching Methods, U.S.D.A. Extension Service Circular 495 (Washington, D.C.: United States Government Printing Office, August, 1955), p. 4.

place or are taking place as a result of extension effort."[14] Evaluation processes are applied continuously to extension work; and the portion of the program measured, the methods applied in measurement, and the criteria used as the yardsticks will vary widely according to the needs of the particular occasion.

That women will continue in the pursuit of learning to better themselves and their families is shown by their participation in the Cooperative Extension Service. Since its inception, the main purpose of the extension service has been to change human behavior by teaching people how to apply the results of scientific research.

The Cooperative Extension Service, born formally through an act of Congress--the Smith-Lever Act of 1914, touches the lives of members in 40 home economics extension groups in Jackson county, 65 such groups in Kalamazoo county as well as other women throughout the nation.

Though changes have taken place within the structure, its basic service to the family steadfastly continues. And it does so because the program was modified through the years to meet the increasing demands of a changing world.

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[14]J. Neil Raudabaugh, "Evaluation in Extension Education," Evaluation in Extension (Topeka, Kansas: H. N. Ives and Sons, Inc., 1960), p. 7.

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