Expanding the Role and Function of the Cooperative Extension System in the University Setting

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Cooperative extension has prided itself on being the outreach of the land grant university. However, with changes in the structure of the population, the economy, and agriculture in particular, extension has had to change as well. Increasingly, extension service providers are reminded that they cannot be all things to all people. There is also increasing competition from other campus units that feel they have an outreach mission. As traditional base funding sources decline, decisions must be made regarding the role and function of extension within the university system. This paper explores these issues using historical data, reports, and six case studies. The case studies provide insights into the ways different extension services have collaborated and partnered in university outreach. The case studies demonstrate that the role of extension reflects such things as past experiences, the level of support for extension, the administrative structure of extension and the university, and the vision of those within and without the extension system.

The Cooperative Extension Service in the land grant university faces many challenges. The role and function of the organization are being questioned; its traditional base of support is changing; funding from the federal and, at times, the state level is declining; the Government Performance and Results Act of 1993 (GPRA) has placed a new emphasis on accountability; there is a movement toward issue-based programing; and several reports and initiatives suggest that extension needs to be better integrated with research and teaching. While many of these challenges were first discussed with the Smith-Lever Act more than eighty years ago, funding issues coupled with a new sense of accountability at the federal level have caused many state extension systems to rethink their role in the land grant university.

Reconsideration of the administrative home of extension within the university is part of the rethinking of the land grant university. In a recent report, Warner, Rennekamp, and Null (1996) found that while the dominant administrative location of extension was within colleges of agriculture, one-third had alternative arrangements, and many had made recent changes or were considering making changes. Recently, Pennsylvania State University made an administrative change to more closely link the extension service to other outreach units in the university. These and other reports reveal the complexity of the decision-making process involved. Identifying the proper administrative home of extension must address issues of traditional support, funding, core subject matter of extension, and the linkage between research and extension in the land grant university.

This paper explores the issue of the role and function of extension within the land grant university using information from census reports, administrative documents, and previous research to provide a context for decision making. The first part of the paper looks at the historical origins of extension and contemporary trends that have a bearing on its role within the land grant institution. The paper then focuses on the role of extension in the land grant university using case studies from around the country.

The Role and Function of the Land Grant University

The Cooperative Extension Service is one leg of the three missions of teaching, research, and extension. The history of the land grant universities suggests that these missions were added as part of a logical, but somewhat unplanned, progression.

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The Morrill Act of 1862 designated funds for the establishment of the land grant universities for each state, while the Morrill Act of 1890 provided appropriations for each state. The latter act also forbade racial discrimination but allowed states to start separate institutions for blacks, which became known as the 1890 universities. Where the Morrill acts established teaching institutions, the Hatch Act of 1887 established and funded state agricultural experiment stations. Thus, the second mission—research—was added to the purpose of the land grant university. Finally, in 1914 the Smith-Lever Act created the Cooperative Extension Service to take the research of the university out to the farm population.

The Morrill Acts

Like much legislation, the Morrill acts have engendered considerable debate over their meaning and proper implementation. The Morrill Act of 1862 established colleges of agriculture and mechanical arts but did not exclude other subject matter. A key provision of the act stated:

> the endowment, support, and maintenance of at least one college where the leading object 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 mechanic arts, in such manner as the legislators of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. (NASULGC 1995, p. 12)

Many have argued that the land grant university had a much larger mission (Peters 1995). Writings and speeches by Morrill show that his intent was a more accessible and practical university system for a larger audience (Weaver and Diamantides 1993; NASULGC 1995). At the time of the passage of the first Morrill act, in 1862, the United States was predominantly rural and agricultural. In 1860, 80% of the population was considered rural and over half the population resided on farms (U.S. Bureau of the Census 1975; NRC 1995). It was easy to assume during that period that "rural" meant "agricultural."

The Smith-Lever Act

The Smith-Lever Act of 1914, which provided support for land grant universities to offer educational programs to the public through a cooperative effort with the states, established the Cooperative Extension Service. The rationale for the act was given in the first section: "to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture, home economics, and rural energy, and to encourage the application of the same" (NASULGC 1995, p. 21).

When the Smith-Lever Act was passed in 1914, the United States was still predominantly a rural country, with 54% of the population living in rural areas and agriculture employing more people than manufacturing (U.S. Bureau of the Census 1975). As the country changed over time, the role and function of the cooperative extension services also changed. Subsequent amendments and new legislation expanded the role of extension in such areas as resource and community development, youth at risk, and communities and families in transition.

The history of extension involved a continuing debate between the role of the extension agent/specialist as an expert in technology transfer in agricultural industries and another role as an educator and process specialist for the general public. Peters (1995) argues that following the passage of the Smith-Lever Act, Liberty Hyde Bailey argued that the extension service could not focus on improvements in agricultural production without also addressing human and social issues. In contrast, Seaman Knapp of Iowa argued that the role of extension was to educate reluctant farmers in new technologies and techniques, primarily through demonstration. While Knapp's viewpoint won out at first, revisions to the Morrill, Hatch, and Smith-Lever acts continued to expand the role and clientele of the land grant university. For example, an amendment to the Smith-Lever Act in 1961 added support for resource and community development work. As the structure of agriculture changed and the composition of the population became more urban, the extension service expanded its role and client base to address other pressing social problems.

Major Trends Affecting Extension

Several major trends have affected the land grant institutions, colleges of agriculture, and in particular extension. These include the shift from a rural nation to an urban one; changes in the number of farms, the farm population and the structure of agriculture; changes in the way extension has been funded; and the mismatch between research and extension in land grant universities. These trends provide a backdrop for the discussion of the role and function of extension within the land grant university.

The Urbanization of America

The United States began as a rural country and slowly became more urban. In 1790, the date of the first official census, nearly 95% of the population was considered rural, and most rural residents were farmers (see figure 1). By 1990 this figure had declined to just under 25%. The point of shifting from a predominantly urban to a predominant rural country occurred between 1910 and 1920. From the 1940s on, there was a decline in many core urban core areas and a growth of suburban areas, reflecting new trends in housing and transportation. If extension were limited to its most traditional base of farmers and farm families, or even to the rural population, it would have faced a declining client base in both absolute and relative terms.

As the country became less rural, the economic make-up of rural areas also changed. Over time rural no longer meant farming. Most rural residents today are not farmers or members of farm families, nor is agriculture the major industry in many rural areas. The Economic Research Service of the USDA developed a county topology of nonmetropolitan counties based on the major economic activity. Of the 2,276 nonmetropolitan counties in the United States (73.7% of all counties), only 556 (24.4%) are defined as farming-dependent.[1]

Changes in the Farm Population and the Structure of Agriculture

Among the reasons for the urbanization of the United States were the productivity gains in agriculture. As farming became more mechanized and farmers increased the use of other inputs besides labor, the number of farms and the farm population declined steadily. In 1900 there were almost 30 million people living on farms in the United States, representing 41% of the population. After a peak of 32.5 million in 1916, the farm population began to decline. By 1990, the number of persons living on farms was 3.9 million (U.S. Bureau of the Census 1975, 1996).

The number of farms peaked in 1935 at 6.8 million. However, the processes of the "-tions"—mechanization, substitution (of chemical inputs for labor), concentration, specialization, incorporation, and integration of commodities—resulted in a decline in the number of farms and the farm population. This process continues today. From 1982 to 1992 the number of farms in the United States declined by nearly 316,000 (14.09%), while the number of farm acres declined by over 41 million acres (4.2%). In some areas, such as the Northeast, the decline in farm acres has been a major land use issue (U.S. Bureau of the Census 1982, 1992).

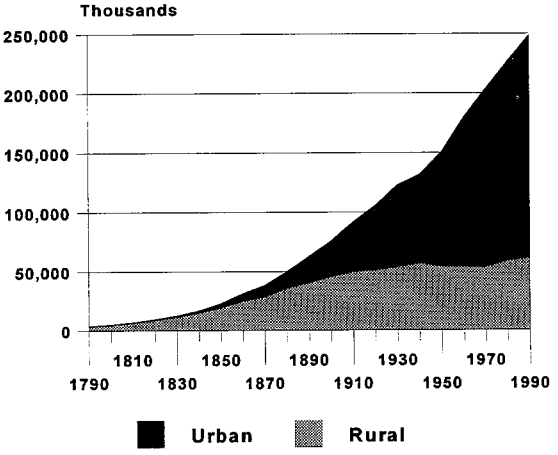

Figure 1. The Population of the United States by Rural and Urban Components, 1790 to 1990
SOURCES: U.S. Bureau of the Census 1975, 1996.

The nature of farming has also changed. Farming has become increasingly sophisticated and specialized. Farm productivity has increased sevenfold since 1948. As a result, agriculture has become more industrialized and concentrated. While in 1900, 17.1% of the farms accounted for one-half of all output, in 1987 3.6% did so. Increasingly, U.S. agriculture has become integrated through contracts or vertical integration in a single firm. By 1970, 92% of broilers, 85% of vegetables, 70% of hatching eggs, 60% of turkeys, and 55% of citrus were under contract (NCR 1996). As farming changed, the needs of farmers also changed. While there is considerable diversity within agriculture, the top producers are increasingly sophisticated and specialized. As a result many farmers began to turn for assistance to specialists at the university and in the private sector rather than the traditional county agent.

Changes in Funding for Extension

Extension's funding remains a serious issue in three areas of concern. First, extension funding, once adjusted for inflation, has remained relatively flat over time. From 1972 to 1995 the total funding for extension increased by 14.3% (adjusted for inflation) despite the addition of new programs and

[1] Farming-dependent counties are nonmetropolitan counties where farming contributed a weighted annual average of 20% or more labor and proprietor income over the three years from 1987 to 1989. See the USDA-ERS Web site for more information: http://www.econ.ag.gov/epubs/other/typolog/.

new audiences. Second, the composition of extension funding from federal, state, and local sources has changed (see figure 2). In 1972, the largest portion of funding came from federal sources, which accounted for 42% of all funding. By 1992, the largest portion came from state sources (46.3%), and funding from local sources was almost as large as the federal share. In real dollars the federal share had declined by almost 23%, while state and local sources had increased. However, in some states, such as Connecticut, Delaware, Massachusetts, Rhode Island, Vermont, and West Virginia, over 45% of extension revenues came from the federal government, primarily because there was little to no funding from local levels (NRC 1995).

Third, while less money is coming from the federal government, that federal money is increasingly designated for special projects such as the Expanded Food and Nutrition Education Program (EFNEP), water quality, Integrated Pest Management (IPM), and Youth at Risk. In 1995, 28% of the total federal extension budget was for special funds (USDA Cooperative State Research Education and Extension Service, unpublished data). This shift has reduced the flexibility at the state level and has resulted in funding pressures.

Extension and Research in Colleges of Agriculture

The National Research Council report on land grant universities "suggests that claims of the research-extension linkage may be overstated" (NRC 1996, p. 17). The CRIS (Current Research Information System) data for 1992 suggest a very good congruence between the percentage of funds and the percentage of scientist years for the major research areas. This distribution of funding and staffing has not changed much since 1972. However, in the 1990s there have been increases in both funding and staffing for the environment and natural resources and slight increases in nutrition, food safety, and health, in processing for value added, and in the social sciences (NRC 1995).

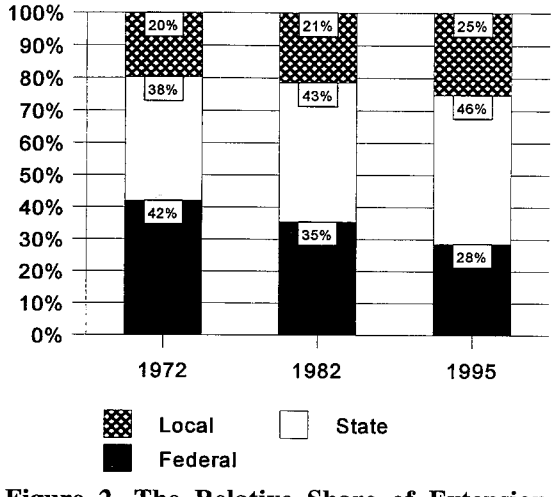

Figure 2. The Relative Share of Extension Funding from Federal, State, and Local Sources from 1972 to 1995
SOURCES: NRC 1995; USDA Cooperative State Research Education and Extension Service, unpublished data.

When extension efforts are compared with research efforts, there is a mismatch. While the program areas listed for extension and research are not exactly the same, some comparisons can be made. Over half (53.3%) of the extension staff fall in the following areas: community resource and economic development (5.8%); family development and resource management (11.6%); 4-H and youth development (18.2%); leadership and volunteer development (8.1%); and nutrition, diet, and health (9.6%). On the research side, only 16.4% of experiment station staff are in these areas.

Initiatives to Study and Change the Land Grant University

There has been a continuing interest in studying the land grant university and building initiatives to change it. For example, a recent Kellogg Foundation initiative is the Food Systems Professions Education (FSPE) Initiative (Fugate 1996). This initiative seeks to prepare the land grant universities to respond to new challenges facing the food system. Its approach encourages broader stakeholder involvement and fosters collaborations both within the land grant university and outside the university, thus encouraging the expansion of university outreach.

The most recent study of land grant universities was carried out by the National Research Council (NRC 1995; Ballenger 1996). The NRC undertook this study because the client base for food and agricultural research and education had changed dramatically, while the institutional arrangements of the land grant university had changed little since its inception (Ballenger 1996).

This effort resulted in two reports: *Colleges of Agriculture at the Land Grant Universities: A Profile* (NRC 1995) and *Colleges of Agriculture at the Land Grant Universities: Public Service and Public Policy* (NRC 1996). Combined, the two reports provide a profile, an analysis, and recommendations for all facets of the land grant university, although their focus is mostly on colleges of agri-

culture. The recommendations identified four main themes on needs (NRC 1996, p. 2.1; Ballenger 1996):

1. The need for an expanded and inclusive view of the modern food and agricultural system.
2. The need for multistate, multi-institutional, and multidisciplinary collaborations and partnerships.
3. The need to reinvigorate the tripartite mission through the integration of teaching, research, and extension.
4. The need for enhanced accountability and guiding principles for the use of public, especially federal, resources.

All of these needs have implications for extension at the land grant university.[2] The second report notes that the extension/research linkage is often overstated and points out that "Extension programs seem to respond to a different set of national, state, and local priorities than do experiment station-based research programs" (NRC 1996, p. 2.17). As a result, the report recommends that at least half of federal funds be allocated to fund projects that integrate teaching, research, and extension.

Awareness and Use of Extension

Two important studies looked at the awareness and use of extension by the general public. Warner and Christenson (1984) conducted a national study in 1982, and this effort was updated in part in 1995 (Warner et al. 1996; Christenson et al. 1996; Dillman et al. 1995). The studies were done through a random telephone survey of 1,048 and 1,124 adults in 1982 and 1995, respectively (response rates were 70% and 60%). The surveys showed a remarkable similarity over the two time periods.

In terms of awareness of extension, the image was somewhat fragmented by program area. While 85% of the respondents were aware of some program area of extension, only 45% were aware of the organizational name (1995 data). In both 1982 and 1995 the greatest awareness was with 4-H programs (77% and 69%, respectively). The authors found that the greatest recognition of extension was among people in the South or Midwest, people living on farms or in rural areas, and people with higher education levels (Warner et al. 1996; Christenson et al. 1996). A far lower percentage had ever used extension programs (26%, 1995 data) or had used extension within the last year (12%, 1995 data) (Warner et al. 1996). Public dollar support for extension was investigated when respondents were asked to allocate $100 (hypothetically) among teaching, research, and extension (public service) within the land grant university. The largest allocation given was for teaching ($45), followed by extension ($30) and research ($25). This research suggests that while extension has support, its support is fragmented by program area. It also shows that much of the population, particularly in urban areas, does not use extension programs.

Response of Extension to These Trends

As the country became more urbanized, with fewer farmers and farm family members, extension also changed. Some changes came from within the organization and some from demands outside, particularly federal legislation. Peters (1995) outlines several important calls for change and reform within extension. In 1945 a joint committee of USDA and the Association of Land-Grant Colleges and Universities was appointed to review the Cooperative Extension Service. This committee recognized the importance of extension's contribution to developing rural leadership; identified extension's function as "helping people learn to help themselves"; and identified a broad objective of extension personnel to act as an "integrating force—helping rural people through education in solving the many interrelated and continually expanding problems which affect their lives" (Peters 1995, p. 51).

Similar studies in 1958 (*The Cooperative Extension Service Today: A Statement of Scope and Responsibility*) and 1968 (*A People and a Spirit*) further elaborated extension as "education for action" and extension agents as "change agents" (cited in Peters 1995). These reports also identified the need to work with poor and alienated populations and called for the removal of the boundaries between rural and urban program areas. This last recommendation encouraged the development of urban programs and publically provided the argument that extension was not just a rural-farm or rural-focused program. The result of these reports and others was that the typical state extension service changed, serving farm, rural, and urban audiences, and providing a wide array of programs (Rewerts and Timm 1996).

Two other reports on extension's future were released in the late 1980s. The Futures Task Force

[2] Unfortunately, the reports do not offer much guidance for expanding extension's relations within the land grant university or for increasing outreach by the whole campus. Most of the reports assume the traditional structure of extension within a college of agriculture.

to the Extension Committee on Organization and Policy (ECOP) (1987) released *Extension in Transition: Bridging the Gap between Vision and Reality.* This report identified four themes for extension to be relevant and effective in the future:

1. Focus attention on critical societal issues.
2. Be adaptive and flexible in structure, staffing, and funding.
3. Be future-oriented in its planning.
4. Draw on broader university resources in its program delivery.

This report moved extension into issue-based, multidisciplinary programing and focused on emerging areas rather than traditional ones. The report also called for new and creative linkages with other colleges in the university. A second report, *New Directions for a New Decade* (Extension Service–USDA and ECOP 1989) built upon the previous report and identified six program areas for extension: water quality; revitalizing rural America; youth at risk; improving nutrition, diet, and health (including food quality and safety); competitiveness of American agriculture (including sustainable agriculture and international marketing); and waste management. The state responses to these efforts moved extension systems into new territory in an effort to be responsive and relevant to social issues (Skinner 1989).

Finally, in 1995 another extension report entitled *Framing the Future: Strategic Framework for a System of Partnerships* (ECOP 1995) sought to clarify the role and function of the extension system. This committee identified the key products and services of extension as research-based knowledge and educational processes. The report also called for setting program priorities; searching for new sources of funding, including contracting and user fees; and building new partnerships with other colleges at the land grant university, other universities and colleges, other state and federal agencies, and national organizations.

Extension within the Land Grant University

During the 1980s and into the 1990s, state extension systems faced tremendous budget constraints. In some states the changes forced systems to reevaluate their program content and the way they went about their work. As the federal and state extension services added more youth, family, and community programs, and as those programs responded to more suburban and urban audiences, questions arose as to the true purpose of the extension service. Debates emerged over the role of extension in rural versus urban areas and in agricultural versus nonagricultural issues, over traditional versus nontraditional clientele, and over linkages with colleges outside the college of agriculture (Conone 1992; Norland 1990; Russell 1990; Schutjer 1992). Some argued that extension should get back to its roots and focus primarily on farm and rural clientele and issues. Others, noting the sheer magnitude of the personnel and program commitment to new audiences, argued that extension needed to continue with new programing but should focus more on its mission of education and begin to partner with other organizations and agencies to accomplish other goals.

The state extension service has traditionally been located within the land grant college of agriculture. However, the Morrill acts and the Smith-Lever Act did not specify the location of extension exclusively within a college of agriculture. The following arguments have been advanced to argue that the college of agriculture should not be the sole source of research-based information for extension:

- The land grant mission is one of teaching, research, and extension.
- Extension of the university to the public is the mission of all colleges and units in the university.
- Extension's role is to take the research knowledge of the land grant university to the public.
- Extension's information should be based on sound research.
- Extension programs focus not only on agricultural production, management, marketing, and conservation as well as youth, family living, leadership, and community development.

Clearly the extension service needs to reach out beyond the college of agriculture to meet its mandate or change its programing.

Schutjer (1991), in an article on rural development, notes that extension is not the only outreach organization within the land grant university. Many other colleges have outreach activities, some of which have base funding from state governments. For example, colleges of education often receive state and federal money to conduct programs for teachers. Nor is the land grant university the only outreach organization within the state. Other universities, colleges, or organizations provide research-based programs for the general public. Schutjer went on to argue that extension must partner with other entities within and beyond the university. He also noted that extension's contributions to collaborative efforts lie in established working relationships in communities, a county of-

fice in most (if not all) counties, and a tradition of cooperation and leadership in bringing people together. Extension could help to bring the right parties together and encourage outreach.

The Current Arrangement of Extension Services

To examine the current structure of state extension systems, Warner Rennekamp, and Null (1996) conducted a study of the extension service units in land grant universities. Questionnaires were sent to seventy-four land grant institutions, including both 1862 and 1890 institutions. The response rate to the mail survey was 96%. The study found that 71% of the extension units were located within colleges of agriculture. However, 13% were located within campus outreach units such as university extension or distance education; 13% were located within free-standing units; and 4% were in dual systems. Twenty-eight percent of the units had either changed their administrative structures within the previous five years or were anticipating making changes. Three-quarters of those who had changed or were making changes were 1890 institutions. The authors pointed out that changes went both ways, and some extension services that had moved out of colleges of agriculture had moved back.

Nearly half (44%) of the extension directors and administrators surveyed viewed outreach as a university-wide expectation. However, those in university outreach units were far more likely to have this view (88% versus 33%). When asked how they acquired expertise from other departments on campus, most indicated informal methods, followed by purchasing services or formal agreement (percentages not given).

Options for State Extension Systems

I see several options for extension in looking at its role as providing university-based research to the general public.

1. Continue the present arrangement within a college of agriculture. This option provides the easiest route because it requires little change. Systems choosing this route would most likely view their primary function as extending agricultural and natural resources research. Although this approach does not preclude the system from focusing on nonagricultural issues, the strongest base of support and research would be in agricultural production and the food system. Other program areas would most likely serve traditional audiences.
2. Remain in a college of agriculture but explore ways to build linkages outside the college. This approach allows for a continuance of traditional relationships and support but also seeks to build linkages with research expertise in other colleges and departments. The question of how this is to be done and at what cost must be explored (see for example, Walker 1988). Options might include a dual administrative system with university extension or distance education, placing specialists in other colleges, joint appointments, contracting for services, and building relationships through grants and projects.
3. Move out of a college of agriculture into a university-wide unit. This approach is the most radical and would involve the most anxiety by staff and traditional support bases. This move would most likely coincide with a decision that the extension system is the outreach arm of the entire university system.

Case Studies

The rest of this section looks at efforts by six universities to reevaluate university outreach, extension, or both entities at once. The case studies are Michigan State University, Oregon State University, Clemson University, the University of Illinois, the University of Minnesota, and Pennsylvania State University. As we look at these case studies, we should note how each university dealt with the following issues:

- The commitment of the university to service/outreach
- The role of extension in service/outreach (is extension the main player, a partner, or a facilitator?)
- How service/outreach is defined
- How linkages between extension and colleges are formed

Michigan State University

Michigan State University conducted one of the more thorough studies looking at university outreach. The provost formed the Provost's Committee for University Outreach in 1992. Committee members represented faculty, department chairs, deans, vice provosts, the director of Michigan State University Extension (MSUE), and an extension program director. Over eighteen months the committee met and discussed issues, interviewed uni-

versity faculty, conducted roundtable discussions with constituent groups, and studied what other universities had done. The committee presented its findings in the *Report of the Provost's Committee on University Outreach* (MSU 1993).

In its report, the committee argued that teaching, research, and extension are forms of scholarship, and scholarship is

> *the thoughtful creation, interpretation, communication, or use of knowledge that is based in the ideas and methods of recognized disciplines, professions, and multi-disciplinary fields.* (Ibid., p. 1.2 [italics added])

The committee used the following definition of outreach:

> *a form of scholarship that cuts across teaching, research, and service. It involves generating, transmitting, applying, and preserving knowledge for the direct benefit of external audiences in ways that are consistent with University and unit missions.* (Ibid., p. 1.1 [italics added])

Outreach occurs when scholarship takes place for the direct benefit of audiences outside the traditional university setting. With this definition, outreach includes teaching a course in a remote area, conducting a market study for a business, or engaging in clinical practice in medicine. In fact, outreach is anything that is based in scholarship and that expands the university through distance, time, place, format, or approach. The report argued that outreach should be considered a major function of the entire university and of each department/unit, not just of specialized units such as cooperative extension or university extension.

The second part of the Michigan State report made specific recommendations for strengthening university outreach:

- The university should accept the definition of outreach in the report.
- The university should establish a system for measuring, monitoring and evaluating outreach.
- Outreach planning should take place at the unit level.
- College and academic units should reward outreach consistently and appropriately.
- Each academic unit should make guidelines for outreach in merit and tenure and promotion decisions.
- Participation in outreach should be stimulated and rewarded.
- Students should be involved in outreach activities.
- University resources for outreach should be provided.
- Barriers to outreach should be eliminated.

The Michigan State University approach did not change the function of the MSUE. The MSUE is located within the College of Agriculture and Natural Resources and lists traditional cooperative extension program areas. One could argue that the Michigan approach neatly defines as outreach many activities that were previously not thought of in this light. The Office of the Vice Provost for University Outreach was formed prior to this report as a means to integrate outreach at the college and unit levels. Though the linkages to cooperative extension exist, this approach appears to be not a reform of cooperative extension, but rather an effort to increase outreach campus-wide.

Oregon State University

In 1993 the Extended Education Transition Committee was formed by the Oregon State University provost to develop recommendations for an extended education model for OSU and to propose implementation steps. The effort was prompted in part because of the OSU Extension Service strategic planning process in 1992, and extension administrators, specialists, and field staff helped the committee. The committee produced a report entitled *Organizing, Planning, and Implementing Extended Education at Oregon State University* (OSU 1994). During the study effort the president created the Office of Extended Education, which is responsible for overall administration of extension service programs and continuing higher education programs. The principal administrator is both the dean of Extended Education and director of the OSU Extension Service. At the same time the president declared that all extension service faculty, agents, and specialists were assigned to an academic department in the appropriate college.

The underlying philosophy of the committee report and Extended Education can be summarized as follows:

- Oregonians want and are demanding greater access to the resources of the university.
- To be successful, the university must be customer-driven and responsive.
- The organizational framework for extended education must be simple.
- The organizational structure should create a closer working relationship between on- and off-campus faculty.
- Implementation will fundamentally change

the university and eventually the OSU Extension Service.

The recommendations of the committee included the following:

- OSU should change its mission and vision statements to reflect the tripartite mission of teaching, research, and extended education.
- OSU should move Agricultural Communications to the Office of Extended Education.
- OSU should establish an external advisory council on extended education to advise the dean of extended education.
- Each college and programing unit should develop a plan for extended education.
- OSU should endorse a definition of scholarship as including teaching and learning, discovery, artistic creativity (performance, presentation), integration, and application.
- OSU should revise promotion and tenure policies to deal with new forms of scholarship.

The recommendations had significant implications for extension. All extension service faculty, agents, and specialists were moved into academic homes. In addition, separate tenure and promotion criteria for extension were suggested.

Clemson University

In 1989 Clemson University in South Carolina began a new, more comprehensive process of strategic planning, which had formally begun in 1986. The president of the university formed a strategic planning committee that heavily involved faculty members. This committee developed a vision statement that recognized the importance of excellence in teaching, research, and public service. In addition, it stated that the "land-grant concept will be expanded University-wide through both intra- and interdisciplinary integration of teaching, research, and public service" (Clemson University 1994).

In relation to the goal of public service, each department was expected to develop by May 1994 an operational definition of its public service mission; an action plan to integrate public service, teaching, and research; and a consistent reward system.

Other recommendations included the following:

- The expertise of all colleges should be used in responding to the needs of citizens and communities in South Carolina.
- All academic units should be expected to participate.
- The following definition of public service should be adopted:

Informal and continuing education, technical assistance, or specialized professional consultation rendered on a compensated or non-compensated basis outside the traditional University setting to businesses, industries, agriculture, and natural resource related interests, schools, local governments, state government agencies, or directly to the citizens of South Carolina.

- A new model for university-wide extension service should be devised, integrating the present cooperative extension service into a campus-wide and state-wide public service organization.
- A brief description of the threefold mission should be included in all personnel appointment letters.
- Evaluation, rewards, and tenure and promotion aspects should be considered.
- Equity in funding all missions should be ensured.

As a result of this effort the director of cooperative extension is the new coordinator of university outreach and reports directly to the provost. Moreover, by 1998 every student will be expected to have worked with faculty and/or staff on a research or public service project or to have participated in an internship, cooperative, or clinical education program as part of the degree requirements.

University of Illinois

In 1996 the chancellor of the University of Illinois at Urbana-Champaign appointed the Commission on Extension to make recommendations on programing, structure, and the future of the Cooperative Extension Service. The charges of the commission were to identify strengths and weaknesses of extension; to address questions concerning the most important aspects of its mission and its structure; to look at the finances of the system and to make it cost-effective; to look at relationships with other organizations; and to identify changes needed to take advantage of new technology.

The Illinois report did not address outreach throughout the university system but rather focused on the proper role of the University of Illinois Cooperative Extension Service within the university system (UI 1996). In that regard a major recommendation was that extension should focus on the four core program areas: agriculture and natural resources; youth development and 4-H; family and consumer sciences; and community and economic development. In addition, the report called for increasing the capacity for these program

areas through a minimum professional staff at each extension office and adequate subject experts.

Other recommendations included enhancing local ownership of the Extension System; emphasizing research-based programing and information resources at UIUC; creating a seamless administrative organization; improving the system for professional development and evaluation; enhancing information and communication technologies; renewing vital partnerships; and seeking adequate, stable, and flexible funding.

As part of this plan the university will seek to link subject experts in the field to departments within the university. The plan also calls for department-based subject experts to strengthen their relationships with extension programs and programing. As part of this process department heads should share responsibility with regional directors for oversight of programs in terms of quality of content, program delivery, and relevance, as well as performance review of subject experts. The report calls for new funding of $3.8 million for new staff; $670,000 for technology; $230,000 for professional development; and $1.3 million for subject expertise. The subject costs appear to be primarily for replacing lost positions, and not for purchasing expertise through contracts and consultants.

University of Minnesota

The Minnesota Extension Service began a multistep process of change beginning in 1980 with the arrival of a new extension director. This period reflected a time of change, funding cuts, and reorganization. In 1986 a strategic process that made several changes was implemented. The Agricultural Extension Service was renamed the Minnesota Extension Service to signify that agriculture was not the only program area; a new mission statement emphasized research-based education to all people in the state; and programs and priorities were focused on four themes—economic development, environment and natural resources, human development, and community leadership. As a result of this effort, counties were clustered, extension agents specialized in one of fourteen subject areas, and issue programing began (Peters 1995).

In 1990 a new staffing plan created more emphasis on leadership education, community economic development, natural resources, and the environment. The plan also emphasized increased collaboration with other agencies. Agents would now be required to have master's degrees and areas of specialization, and there would be more use of short-term assignments and more shared staffing arrangements within the whole university. The last change moved Minnesota to a strategy of placing extension specialist positions in several colleges within the university. Budget cuts in the 1990s furthered this process. In 1992 the plan called for a collegiate program leader in each of the colleges with extension programs; the allocation of the total extension budget for each college to the dean of each college; and the creation of a dean's council to improve coordination. Currently, thirteen partners are listed on the Minnesota Extension Service Web site.

In some cases the linkages with other colleges are substantial. For example, the Center for 4-H Youth Development is located within the College of Education and Human Development. The colleges of human ecology and natural resources have numerous extension faculty within their departments. However, looking at Web sites of the partners revealed that many made no mention of the Minnesota Extension Service, and some that did so required substantial searching. In fact, the only partners with direct linkages to MSE on their home pages in June 1997 were the College of Agricultural, Food, and Environmental Sciences, the Minnesota Agricultural Experiment Station, and Minnesota Sea Grant.

Pennsylvania State University

One of the more recent efforts of reorganization has taken place at Pennsylvania State University. Penn State developed the *Plan for Strengthening Outreach and Cooperative Extension* (1997). The plan calls for the president of the university to provide final administrative oversight of all outreach and cooperative extension activities at the university. A new vice president for outreach and cooperative extension will report to the president and will develop partnerships among the university's colleges and service units to coordinate planning, delivery, and evaluation of the university's overall outreach effort. This position replaces the previous vice president of continuing and distance education.

Through this plan Penn State hopes to become a national leader in the integration of teaching, research, and service. The plan seeks to broaden access to the university's knowledge base; to strengthen its capacity to address critical issues; to develop a university-wide outreach and cooperative extension program plan; to involve all academic and administrative units in outreach; to increase rewards and support for outreach; to build a partnership between cooperative extension and distance education; and to develop new partnerships

between Penn State and groups and agencies in the Commonwealth of Pennsylvania.

As part of this effort cooperative extension will still be an integral part of the College of Agricultural Sciences. However, now the vice president for outreach and the dean of the College of Agricultural Sciences will hold joint responsibility for leadership and oversight of the Penn State Cooperative Extension. This responsibility includes the appointment of the director of cooperative extension. As a result of this plan, the dean of the College of Agricultural Sciences will no longer be the director of cooperative extension.

These changes are relatively new, and the first steps will be to search for a new director of cooperative extension. Once appointed, the director will begin to review the roles, workloads, and assignments of extension specialists and field staff. An associate or assistant dean from each college will serve as a liaison for outreach and cooperative extension and will coordinate access to resources to that particular college. These college representatives will also serve on the Coordinating Council for Outreach and Cooperative Extension to enhance outreach efforts. There will also be regional councils for outreach and cooperative extension, which will represent colleges, campuses, and outreach and extension units. Implementation for this plan began in January 1997.

Table 1 provides a summary of the case studies. They provide a range of approaches and are by no means the only examples of attempts by state extension systems to deal with their roles and functions within the land grant universities. Some extension systems, such as that at the University of Illinois, maintain their present relationships with the colleges of agriculture and seek to clarify their traditional role as educators who take mostly agricultural university knowledge out to the public. Others, such as Oregon State University and Clemson University, have moved at least some of the functions of extension out of the colleges of agriculture. In these efforts, the former directors of extension have become the heads of combined units. It is not clear how these arrangements will affect traditional programs, or how well extension specialists and agents/educators will link up with other units. Finally, the University of Minnesota has undertaken a unique approach in that specialists are housed in several colleges, and the budget is also stretched across colleges.

Conclusions

The changing structure of the population, the economy, and agriculture in particular has forced the Cooperative Extension Service to change as well. Extension has come a long way from traditional program areas emphasizing agricultural production to issue-based programing that cuts across many disciplines. Most state extension systems take refuge within the origins of the Smith-Lever Act and argue that their role is research-based education to improve the lives of the population of their states. However, increasingly extension service providers are reminded that they cannot be all things to all people. As traditional base funding sources decline, decisions will have to be made regarding the role and function of extension within the university system. Extension has been guilty in the past of not making the hard decisions.

This paper cannot and will not answer the question of how best to serve the public because each state extension service must decide for itself. Clearly, extension has a role in taking the knowledge of the university out to the public, and it has done so for more than eighty-six years. However, it is also clear that extension is not the only entity to fulfill this role. There are others on campus and around the states who also have a charge of research-based education; extension can no longer claim this role as its alone. However, county offices, local and state funding, and years of experience and contact with local communities provide it with valuable assets. I personally feel that one of extension's best features is the input to programing from local communities and users. This connection is extremely valuable when dealing with other agencies and organizations that lack the grass roots connection and support. If the future of extension leads us away from this base of support, then I fear that extension's role and purpose will suffer.

The case studies discussed in this article provide good examples of ways in which different states have approached outreach within the university setting. The diversity of approach speaks well to the need for each state extension system to search for its own strategy. This is no single way to go about it. The case studies show that the decision-making process reflects past experiences, the level of support for extension, the administrative structure of extension and the university, and the vision of those within and without the extension system. However, an extension service that sincerely seeks partnerships and promotes educational efforts can make an impact on other colleges and units within the land grant university. In doing so, it need not feel that it is the only source of outreach, nor that it must cover all areas. It must set priorities. It must recognize that extension will face institutional and cultural differences when collaborating with other units and colleges (for an excellent example see

Table 1. Summary of Examples of Extension Reform Efforts

Criteria	Michigan State University	Oregon State University	Clemson University	University of Illinois	University of Minnesota	Pennsylvania State University
Date	1993	1994	1994	1996	1980 to 1990	1996 to 1997
Focus Role of cooperative extension in university outreach	University-wide Partner: but does not involve a significant change	University-wide Main player and facilitator: extension is combined with extended education	University-wide Main player and facilitator: director of extension is also coordinator of university outreach	Primarily extension Partner: but does not involve a significant change	Primarily extension Main player and facilitator: puts specialists into other colleges	University-wide Partner: director of extension reports to vice president for outreach and cooperative extension
Changes in extension structure	No significant change	Significant change: director of extension is also dean of new Office of Extended Education; agricultural communications moved; extension staff moved into academic departments	Significant change: director of extension is also coordinator of university outreach	No significant change	Significant change: change in name; agents required to have M.S. and to specialize; specialists located in other colleges; budget control allocated to other colleges	Somewhat significant change: dean of agriculture is no longer director of extension; extension also reports to vice president for outreach and cooperative extension
Involvement of other colleges on campus	Yes: each college/unit is responsible for outreach plans	Yes: each college/unit is responsible for outreach plans	Yes: each college is expected to develop outreach programs	No: little to no mention given	Yes: through the efforts of extension	Yes: each college will have a liaison for outreach and cooperative extension
Linkage of extension with other colleges	Unclear: no formal linkages from this effort	Unclear: no formal linkages from this effort	Yes: extension is expected to partner	Unclear: limited discussion of partnerships	Yes: formal linkages are established through personnel and budget	Unclear: yet to be announced
Significant features	Outreach is all scholarship outside of traditional university	Specialists moved into departments	Students will be required to be involved in outreach or internship	Clarification of traditional roles in agriculture, youth, family, and community development	Shifted funds and personnel from College of Agriculture to other colleges	Goal is to develop university-wide outreach and cooperative extension plan

Walker 1988). Addressing issues of funding, fees, rewards, and institutional credit will be paramount. In this process, extension must be careful to maintain its identity with its traditional clientele and support groups.

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