2109 The Evolution of Extension Education in the United States: A Texas Perspective

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ABSTRACT

Land-grant university research and extension education were created with a vision to provide people with life-long benefits from science-based information and research. Sustainable federal, state, and local government funds are important to continuing this land-grant system. Extension education is driven by locally identified needs and involvement of citizens working with local Extension educators—a model that continues to successfully deliver quality, relevant educational programs that help people to help themselves.

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Land-grant Universities. Agricultural Experiment Stations. The Cooperative Extension System. These systems represent advancements that evolved in the United States to make university knowledge and research more accessible and useful to the general populous.

In a few moments, I'll discuss the status of these systems in today's world. But first, I'd like to talk briefly about their place in the history of the United States.

We Americans all know about the U.S. Declaration of Independence (1776) and Bill of Rights (1791), which were critical to the birth of our democracy. Today, they top a list called milestone documents, a list of the 100 most significant documents affecting the course of U.S. history. These milestones were identified by the United States Archives from thousands of public laws, Supreme Court decisions, inaugural speeches, treaties, constitutional amendments, and other documents.

The Advent of Land-Grant Universities

This audience probably isn't surprised that the list includes the 1794 patent for the cotton gin. I am not surprised that the list also includes the Morrill Act of 1862.

The Morrill Act provided the first federal aid for higher education. The Act mandated a grant of 30,000 acres of public land to each state to establish colleges in furtherance of the agricultural and mechanical arts and to serve students for whom private colleges were out of reach. Some states sold the land to finance existing institutions; other states chartered new schools, as Texas did to create the institution now known as Texas A&M University. These schools became part of a national network of state colleges and universities that is called the land-grant university system.

The Advent of Agricultural Experiment Stations

While Congressional leaders had opened education to more people, it became evident that land-grant faculty needed research resources and findings to bring to the classroom. To remedy this need, 25 years after the Morrill Act, the land-grant university system was expanded under the Hatch Act of 1887. That act provided funds and directed the creation of agricultural experiment stations in connection with the land-grant colleges to enhance agricultural research and to disseminate research findings through the students.

The Morrill and Hatch Acts set the stage for dealing with many challenges at the turn of the century. Farmers across the country were dealing with major difficulties—devastating pests on one-crop operations, loss of soil fertility because of overproduction, and loss of topsoil to erosion. The land-grant universities, experiment stations, and the U.S. Department of Agriculture were applying their best research efforts to solve these problems.

But adoption of new practices was slow—making big changes back home on the farm was a big risk. How to help agriculture improve? Enter Seaman Knapp. Seaman Knapp was serving as USDA's Special Agent for Promotion of Agriculture in the South. He believed firmly that, for a farmer to see the value of a new idea, simply visiting a government operation wasn't enough: the farmer must do it himself, on his own land, under his own conditions.

A group of farmers and business leaders in Terrell, Texas, heard of Knapp's work and asked him to help conduct a demonstration on a locally owned farm. The group pledged to cover the costs and any losses sustained by the farmer. Knapp agreed and the nearby farm of John Porter was chosen.

Do you know the rest of the story? That 1903 demonstration on 70 acres was so successful and profitable that John Porter announced he would adopt the new practices on all 800 acres of his farm. Neighboring farmers also began changing, after seeing the results in an actual farm business and not just a controlled research environment.

The success of Seaman Knapp, as well as Booker T. Washington in working directly with cooperating farmers, fueled a rapid rise in farm demonstrations. In turn, recognition grew for the value of demonstrating the positive results of science-based research in a whole farm system.

The Advent of the Cooperative Extension System

However, Dr. Knapp also recognized that conducting such demonstrations would not be sufficient alone to facilitate adoption of new, research-proven practices. He saw the need for local agents or educators who were well known and respected in their communities, who could identify local problems and introduce improvements from a position of credibility and trust.

That vision came to pass in 1906, when two forerunners of a county Extension agent were hired, both on November 12. One in Smith County, Texas, and one at Tuskegee University in Alabama.

This revolution in the transfer of new agricultural methods from the researcher to the end user led to another historic development in 1914. That year, the United States Congress passed the Smith-Lever Act. Congress charged the U.S. Department of Agriculture and the state land-grant colleges with a new function–conducting "cooperative extension work" to provide rural Americans with instruction and practical demonstrations in "agriculture and home economics and subjects related thereto."

In essence, Congress wanted to see research and new knowledge delivered or *extended* to the people. And so we came to have the national "Cooperative Extension System," a network of state Extension departments or agencies, affiliated with the land-grant university system, to engage people in life-long learning. Today, Extension educators serve some 3,000 counties nationwide.

There you have it–from 1862 through 1914, the birth of land-grant universities, agricultural experiment stations, and cooperative extension, which make up the full land-grant system. Together they have helped to shape our society and economy by making higher education

feasible for millions of students and by taking the benefits of science-based information and technology to the people, in this country and worldwide.

Extension Education Today

Now, let's look at the present. And let's take Texas as an example. After all, you're in Texas and Texas was home to the Knapp-Porter farm demonstration and the first county agent hired with funds from both the federal government and local community. Maybe you've heard of Texas pride and we're pretty proud of our Extension heritage and record of service.

As I've said, Cooperative Extension started as a way to solve the problems affecting an agrarian society. Historically, Extension education has addressed the issues of the day. In Texas, Cooperative Extension exists today to serve Texans wherever they live, and to serve them in the ways that our Extension expertise, experience, resources, and capacity can best benefit them.

We continue to serve Texas agriculture and to target the locally identified, contemporary needs of our state and an ever-growing diverse, urbanized population. Our mission is simply stated. It is to provide quality, relevant outreach and continuing education programs and services to the people of Texas.

The two key words in that mission statement are "quality" and "relevant." To ensure that we deliver quality, relevant programs, we practice grassroots issue identification through a special program development and delivery process. (See Figure 1.) This process is fundamental to success in Extension education. No matter where in the world that Extension education exists, its success in improving people's lives depends on following the simple principle of bringing science to solve the people's own identified problems.

It is essential to involve local people, in both program development and program delivery. Local residents must be involved in deciding what Cooperative Extension should do for them, and they must also be involved in planning and implementing programs to address their identified issues.

Cooperative Extension utilizes numerous sources of continuous stakeholder input to identify relevant issues and response actions. These sources include commodity or special interest groups, county and other local committees, elected officials, state and national trends or mandates, base programming, and issues identified by Extension specialists. In addition, most Cooperative Extension agencies employ strategically designed listening sessions as part of long-range planning every four to five years, which guides major resource development and staffing decisions.

At the same time, county-level program offerings are constantly being directed to relevant local issues through real-time involvement of community members on volunteer program committees. In Texas, we accomplish this through citizen-led Advisory Boards and Program Committees that work in coordination with County Extension Agents. Some 16,000 citizen volunteers served on these groups in 2006.

Based on identified issues and priorities, we determine key educational areas in which to focus development of new Extension program pilots, curricula, and resources–all of which are

available to each county Extension office. The combination of programs implemented locally may range from "traditional" to "cutting edge," given the varying needs, stages of adoption, and creativity of local citizens and communities.

Extension programs historically have employed demonstrations of new technology, including applied and adaptive research, in agribusinesses, communities, and homes. Several methods are used to facilitate learning for large audiences, including meetings, field days, workshops, short courses, newsletters, teleconferencing, online interactive programs, and the use of master volunteers. Web sites and other electronic media are used to make educational information as accessible as possible.

Our Texas Extension professionals include *County Extension Agents,* who act as resident educators, working from 249 county offices to serve families, youth, communities, and businesses in all 254 counties. This local presence is supported by a group of *Extension Specialists* and other professionals based at 12 district offices and Texas A&M University. In addition, thousands of Extension-trained volunteers further extend the agency's capacity for educational outreach.

All Texas Extension programs are directed to outreach and 84 percent of personnel are located across the state, outside the agency headquarters. This represents a unique network and capacity for identifying relevant issues and educating Texans based on their prioritized needs.

In total, Texas Extension personnel and Extension-trained volunteers achieved more than 16 million direct teaching contacts in 2006. Millions more contacts were made indirectly via the news media and Web sites, etc.

Among youth between the ages of 5 and 19, Texas 4-H reaches some 700,000 each year. Over half the participants come from major urban areas, including a majority of more than 400,000 youth who expand their knowledge through 4-H school enrichment curricula.

Each year, Extension's expertise and educational network are employed in collaborative partnerships to conduct joint programs, which help prevent duplication of services, carry out legislative mandates, and support emergency preparedness. Last year in Texas, the number of unique Extension program plans included:

- **1,682** with independent school districts and **1,090** with universities and community colleges;
- **2,997** with private sector organizations and **4,467** with nonprofit entities; and
- **8,231** with local, state, and federal governmental entities.

Recent natural disasters such as drought, wildfire, and hurricane, as well as continuing biological and man-made threats to homeland security, spotlight the need for and benefit of the Extension network for education about emergency management, especially for disaster prevention, mitigation, and recovery.

An example of redirection in Texas occurred when the Extension network was deployed to conduct an urgent survey, Jan. 5-6, 2006, at the request of the Texas Forest Service, in coordination with the Governor's Division of Emergency Management.

In less than 48 hours, Extension county agents and staff personally conducted a statewide survey of Texas fire and emergency service departments. Extension personnel reached 95 percent of the target--completing some 1,740 surveys and entering them in an Extension-authored online database. Prompted by the wildfire crisis, the survey results aided the state in obtaining a federal disaster declaration and to seek emergency federal funds, as well as private foundation funds.

Moving Forward with a Timeless Mission

Recent interpretations further illuminate the Extension mission. According to McDowell (2001, p. 69), the purpose of Cooperative Extension has always been:

"(1.) To seek to know the problems of ordinary people and bring those problems to the attention of the researchers, (2.) To deliver functional education, based on the best scholarship available, to ordinary people, and to help solve their problems, and (3.) To collect political support from the beneficiaries of Extension programs in order to fund the continued research and education of ordinary people of the society…."

Rasmussen (1989, p. 1) stated that, "The mission of the Cooperative Extension Service is to help people improve their lives through an educational process which uses scientific knowledge focused on issues and needs."

"Extension education is an intentional effort to fulfill predetermined and important needs of people and communities," (Seevers, Graham, Gamon, & Conklin, 1997, p. 91).

Funding by Federal, State, and Local Government Partners

Cooperative Extension is currently financed for a total of $1.8 billion**,** of which 21.2 percent is federal money and 71.2 percent is state and local funds. Of the federal portion, formula funds comprise 78.6 percent for "1862 institutions" (per Morrill Act of 1862). With the state and county funds representing a large majority of the funding, state and county control of Extension activities has been the dominate mode of operation. One could suggest that a small amount of federal funds has been leveraged into a much larger amount of state and county funding for Cooperative Extension. This most likely would not occur if the Extension were centrally controlled from Washington.

Currently, federal funds for Cooperative Extension are distributed to the states on several different bases. Although local financial support was not required by the federal legislation, it evolved as local people began to support the program and see it as their own. Joint funding was part of the model of the first county Extension agent in Smith County, Texas, and today local funding is a substantial portion of total Extension funding in most states. In Texas, 21 percent of our total budget comes from county government, while state and federal appropriations constitute 47 and eight percent, respectively. The remainder comes from user fees and contracts and grants with public and private collaborators.

Extension across the nation is accountable to stakeholders at multiple levels. At the local level, stakeholders include farmers, households, small businesses, and local governments. At the state level, stakeholders include the state legislatures, various state agencies, and state organizations of

farm, commodity, and business organizations. The federal stakeholders include the U.S. Department of Agriculture and other federal agencies, and national organizations of commodity, farm, environmental and consumer groups. At the local and state level each state may be required to submit evidence of impact in different ways. Currently USDA mandates that stakeholder input be incorporated into plans of work and that periodically each state must submit plans of work and annual progress reports to show accountability.

Changing the Formula Funding Mechanism

In my opinion, a removal of federal formula funding of Cooperative Extension would break the partnership that was established in 1914. The success of Extension also depends on local support and hard work by extension faculty and volunteers. At the center of this support is a long tradition of financial backing by the federal government. The synergistic effect of this partnership has allowed groups to work together and has sustained efforts to help communities solve critical issues, while reducing unneeded competition.

If Extension were to become funded primarily by external grants and contracts, Extension efforts to support the common good would largely disappear. Public good Extension would not be undertaken because there would be no individual or group that would fund it. Over time, social welfare would be reduced.

Conclusion

In summary, the success of Extension education is based on simple principles of bringing the best science to meet the identified needs of the customer in the areas where we have a competitive advantage: agriculture and natural resources, health and human sciences, and youth and leadership development

I would also argue that we maintain the prudent practice of the tripartite public funding mechanism that currently exists. Yes, we need to increase funding levels from sources outside the traditional state, local, and federal funds if we are to significantly expand the value-added benefits of our system. Thus, targeted grants and contracts, user fees, and nontraditional funding sources, e.g. municipalities, must become proportionately greater, but not dominant in the Cooperative Extension System budget portfolio.

Thank you for the opportunity to address this conference about the land-grant system that has served our country and our world so admirably and can continue to do so in the future if we stand by our principles.

References

Evenson, R.E. 2001. Economic Impacts of Agricultural Research and Extension. *In* B.L Gardner and G. Rausser (ed.) Handbook of Agricultural Economics 1(A). North-Holland, New York, NY.

Gupta, K. 1999. A Practical Guide to Needs Assessment. Jossey-Bass Pfeiffer Publishers, San Francisco, CA.

Huffman, Wallace E. and Evenson, Robert E. Nov. 2006. Do Formula or Competitive Grant Funds Have Greater Impacts on State Agricultural Productivity? American Journal of Agricultural Economics 88(4): 783-798.

Huffman, W.E. and R.E. Evenson. 2006. Science for Agriculture: A Long-Term Perspective. Blackwell Publ., Ames, IA.

McDowell, G. R. 2001. Land-grant universities and extension into the 21st century. Iowa State University Press, Ames, IA.

National Archives. 1995. Milestone Documents. National Archives and Records Administration. p. 57 [Online]. Available at www.ourdocuments.gov (verified 25 July 2007).

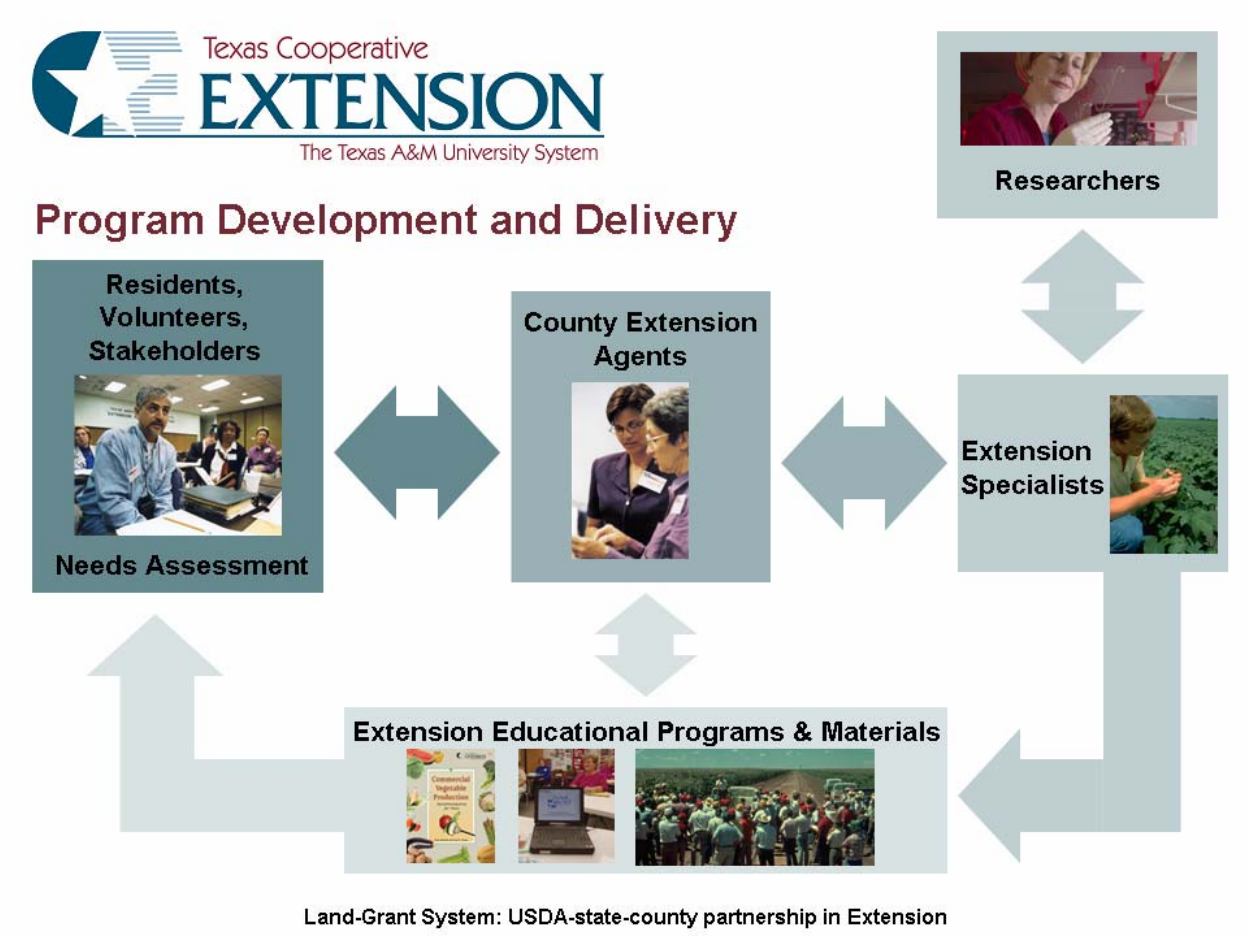
National Association of State Universities and Land-Grant Colleges. 1995. Development of the Land-Grant System: 1862-1994 [Online]. Available at http://www.nasulgc.org (verified 5 Sept. 2005).

Pennsylvania State University College of Agricultural Sciences. 1998. Brief Historical Perspective of Cooperative Extension [Online]. Available at http://www.cas.psu.edu (verified 5 Sept. 2005).

Rasmussen, W. D. 1989. Taking the University to the People: 75 Years of Cooperative Extension, Iowa State University Press.

Report of the Joint USDA-NASULGC Study Committee on Cooperative Extension. Nov. 1968. A People and a Spirit, Colorado State University.

Seevers, B. S., Graham, D., Gamon, J. & Conklin, N. 1997. Education through cooperative extension. Delmar Publishers, Albany, NY.



Land-Grant System: USDA-state-county partnership in Extension