Extension Vision for the 21st Century

A Report to
President Peggy Gordon Elliott
SOUTH DAKOTA STATE UNIVERSITY

prepared by Dean Fred Cholick
College of Agriculture and Biological Sciences
and
Interim Director Larry Tidemann
South Dakota Cooperative Extension Service

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Executive Summary

Background and Historical Perspective

1862 -- Morrill Act established the land-grant system and gave the colleges the mandate to teach.

1887 -- Hatch Act established the agricultural research mission for land-grant colleges.

1914 -- Smith-Lever Act established the extension mission for land-grant colleges.

1915 -- The South Dakota legislature enacted legislation for the formation of the South Dakota Cooperative Extension Service (CES). The law passed in 1915 says, "It shall be the duty of the Board of Regents of education to organize and conduct agricultural extension work as provided by said act of Congress in connection with other agricultural extension work carried on by South Dakota State University."

Cooperative Extension Service is a jointly funded cooperative program of the United States Department of Agriculture (CSREES), SDSU (State of South Dakota) and local governments.

1998 -- In response to changing needs and issues and at the request (direction) of the 1998 South Dakota Legislature, SDSU undertook an intensive examination of its present CES program and began a comprehensive planning effort to determine its best future in the 21st century.

Discussions were held with leaders from other states that had completed a review of their CES programs. Their findings and models were considered along with extensive data related to the needs of the people of South Dakota and with federal goals and guidelines.

Conclusions of the CES Organizational Review

Three hundred fifty surveys were received from members of the State Extension Advisory Board and County Extension Boards, commodity groups, county commissioners, non-extension users and extension personnel. Respondents indicated strong support for CES and the desire to maintain a county presence. There was a general recognition that all organizations need to change. Those surveyed indicated they were interested in participating in credit courses to be offered to the place-bound learner.

FOCUS

Mission, core programs, and core values will be the central themes that drive the function and structure of CES.

Mission

To help people improve their lives through an educational process that uses science-based knowledge focused on issues and needs

Core Programs

Agriculture
Youth Development/4-H
Family

Core Values

Responsiveness: Exceed client expectations in so far as the timeliness and quality of information/programs presented.

Excellence: A continued commitment to excellence in programs will be the motivating factor for continued improvement and growth of the organization.

Accountability: Relevant and useful data will be gathered and used to make decisions about organizational changes, allocation of resources, program priorities, staffing patterns, and professional development for CES personnel.

Credibility: CES will address problems and issues with research-based answers.

Respectful: CES will not make decisions for the citizens of South Dakota but will present alternatives and assist them in the decision-making process.

Catalytic: Through cooperative and collaborative efforts CES will help cause change across the state.

FUNCTIONS AND STRUCTURE

CES needs a presence in every county, but cannot be expected to have resources located in every county to address every issue, problem or question. No individual can be expected to have the knowledge to respond to every issue, problem, or question, but the system must. CES does not presently have the financial resources to have specialized human resources located in every cluster, and CES can not be everything to everyone.

CES is proposing a new model for the organization built on the strength of the three-way federal, state, and county partnership. County and local ownership will serve as the cornerstone for the expansion of the cluster system into Field Education Units (FEUs).

The new structure will have the following staff (102 total):

- 21 livestock/dairy
- 26 agronomy/horticulture
- 28 family and consumer sciences
- 2 farm management/marketing
- 25 youth development/4-H

A name change for the County Extension Agents to County Extension Educators will better describe their role and functions of educator, problem solver/coach, information resource, and facilitator. State specialists will remain so named and serve in their roles as educators, applied researchers, trainers, problem solvers, and scientists.

Professional development for County Extension Educators to achieve the level of required specialization for their subject matter area will focus on a mentoring program and disciplined, focused, continuing education. Core competency training for a given discipline will be completed by all new employees within the first six months of employment.

Expanded advisory and planning boards will ensure the continuation of the identification of grassroots needs and will fully reflect the issues and priorities of the local communities and state. The advisory board structure for CES will include:

- County Extension Advisory Boards
- Field Education Unit Advisory Boards
- State Extension Advisory Board
- State-Wide Long-Range Planning Board
- Campus Resource Council.

USER FEES

USDA legal rulings and administrative guidelines clearly preclude charging user fees to offset the salaries of Cooperative Extension faculty and staff who are funded at least in part with county, state, or federal revenues. In compliance with this federal policy, state and county cost recovery efforts may not extend to the salaries of these personnel. Fees may not be substituted for state or county appropriated funds.

Fees may be charged to partly or wholly recover costs for services that enhance a basic educational program such as mediated transmission and associated costs, publications, computer analyses, and software. Conference expenses, such as outside speakers or equipment rental, may be recovered by charging a fee. Fees also may be charged for services provided to an extension-related organization, such as meeting room rental, expendable supplies, and printing.

In accordance with these guidelines, the implementation of distance education by CES may allow for the generation of user fees that will assist in maintaining the efficiency and flexibility of CES.

Distance Education

CES will expand its networking and educational opportunities for South Dakotans across the regental system by giving local access to credit and non-credit courses. CES distance education will be education available to citizens that are not resident of one of the system campuses and is an education that draws upon the knowledge base of SDSU.

THE TECHNOLOGY MODEL

Goal 1

Enhance and update the current model for information transfer and distance education used by CES by increasing use of appropriate technologies that optimize effectiveness and offer time and distance-related efficiencies.

Goal 2

Provide fluid opportunities to integrate a wide variety of collaborators in the delivery of programs to clientele throughout South Dakota.

THE INFORMATION MODEL

A variety of informal and formal educational opportunities will be made available to individual citizens, groups, businesses, and partnering organizations. These opportunities will include workshops, short courses, certificate programs, and credit courses.

CES County Extension Educators can organize, promote, and facilitate an outreach site for a given program or class. An example of the new CES distance education program and multi-college collaboration fulfilling a local need is the proposed Rural Leadership program from the College of Education and Counseling at SDSU.

Individuals living in rural communities and served by CES but isolated from the mainstream of traditional degree programs would be able to access this program, not only to complete a degree, but also to provide input into the community to guide its future development.

Summary

CES plans to meet the needs of the clientele in the 21st century via the following:

Brokering the resources from the total University to better serve the people of South Dakota.

Expanding advisory and planning boards to ensure the continued identification of grassroots needs and to fully reflect the issues and priorities of the local communities and state.

Focusing on the three, core program areas:

- Agriculture
- Youth development/4-H
- Family

Abiding by the core values:

- Responsiveness
- Excellence
- Accountability
- Credibility
- Respectful
- Catalytic

Expanding the county clusters into Field Education Units.

Increasing the subject matter expertise of the County Extension Educators while maintaining their ability to provide answers to problems and issues as related to the three core program areas.

Accomplishing these goals with targeted hiring, mentoring programs, and core competency training.

Adopting new technologies, where and when appropriate, to enhance program delivery, including both credit and non-credit courses.

Completing implementation of the changes in CES function and structure by 2001.

Background & Historical Perspective of the Land Grant University System

The history of the Colleges of Agriculture of the Land Grant University has been long and varied from the humble beginnings in the mid-1800s, with a primary focus on teaching farm youth, to a later branching off to a wider mission encompassing research and extension.

Land grant universities made college educations available to the sons and daughters of people unable to afford the elite universities. Initially, land grant university personnel not only taught basic farming methods, but also new technology in the way of machines, chemicals, and other production practices.

Land grant universities also have provided leadership in the Family and Consumer Sciences (FCS) arena, empowering individuals, families, and communities to meet economic and social challenges while improving their quality of life.

Land grant universities, admired and emulated throughout the world, have provided major innovations resulting in enhanced food production and self-sufficiency, nationally and internationally. Enhanced food production per unit of land can be, and is, an environmentally friendly goal, because whenever less land is required to feed more people, more land is left for natural or indigenous purposes.

Land grant universities have been impacted by or have initiated three major agricultural revolutions.

The first revolution involved the substitution of horse and ox power for manpower, causing farming to become more capital intensive. Later, machinery (tractors, harvesters, etc.) replaced animal power and manpower, enabling farm size and productivity to increase.

The second revolution began around World War I when outreach education or extension was added to the mission of agricultural teaching and research for the land grant universities.

The result of combining the three functions -- teaching, research, and extension -- in one college was improved agriculture productivity, further reducing the farming community to a smaller part of the nation's food system.

The improved level of agricultural productivity has led to the growth of an elaborate agricultural industry that provides many services and products to farmers and consumers.

We are currently engaged in the third phase of the agricultural revolution -- rapidly changing technologies and information overload. New technologies, such as computer and genetic engineering, coupled with advances in processing and marketing, will continue to enhance the productivity of the system, further shrinking the farm population.

Production management practices and new technologies also will continue to focus on environmental stewardship. Ours is no longer a local but rather a global farm economy. Recent events in Asia are having an impact on farmers and ranchers in South Dakota.

The 1862 Morrill Act gave land grant colleges their mandate to teach. The colleges later acquired their research function in 1887 through the Hatch Act, which recognized the need for original research to support the teaching of agriculture and develop agricultural innovations.

With the 1914 Smith-Lever Act, each college took on a third function called “extension” that was designed to disseminate agricultural college-generated knowledge beyond the campus to farmers and consumers. Extension was to become a cooperative activity between the federal government (through the United States Department of Agriculture) and the states (through the land grant colleges).

County governments became cooperative partners via the county extension agents. Legislation passed in 1994 granted land grant status to the tribal colleges, of which there are four in South Dakota.

Federal-appropriated and federal-restricted funding through the United States Department of Agriculture (USDA), Cooperative State Research, Education and Extension Service (CSREES), pass through the South Dakota Board of Regents to be used for identified research and extension functions.

Today’s Cooperative Extension System is a unique achievement in American education. The focus on national goals builds on this achievement and sets in place a long-range strategic plan for program development and direction.

The strength of the Cooperative Extension Service is its extensive national network and cooperation among federal, state, and local governments.

The Federal partnership provides program direction from the national perspective. The Federal program goals are broad, cut across regions, and focus on issues that impact the nation.

Extension’s strong linkages with external groups, both public and private, are necessary to its continuing viability and growth. These partners are playing a crucial role today as they work with Extension staff nationwide to identify and target critical issues.

Continual interaction and feedback with extension program users are key to the national, state, and local programming efforts. This process assures that local needs and concerns will continue to be met by integrated programs that address critical issues and are delivered to people in the communities where they live and work.

South Dakota State University Cooperative Extension Service

South Dakota State University (SDSU) is South Dakota's land grant institution within the regental system and as such has the unique responsibility to serve individuals, organizations, and communities across the state.

Our three basic functions--teaching, research, and extension--define who we are and our mission, a mission different from that of the other regental institutions. The three functions, though clearly defined and different, work cooperatively to better serve the citizens of South Dakota for the general public good.

SDSU, through the Cooperative Extension Service (CES), has provided leadership in extending the science or research-based knowledge and human resources beyond the campus to address the needs of the state's residents and the issues faced by the state and society in general.

CES's mission "To help people improve their lives through an educational process that uses scientific knowledge focused on issues and needs" is the foundation of the organization and must remain our cornerstone through the change process.

CES has been, and will continue to be, the primary provider of unbiased or research-based knowledge and the voice of SDSU. However, as times have changed and society has become more complex, the outreach must be extended beyond CES and SDSU.

Given its history and established organizational network, SDSU can provide a seamless network of outreach, "points of access" throughout the state. Each county CES office will serve as a door through which the community can access programs or resources available through the university system.

Outreach is the process of extending the intellectual expertise of the University through teaching, research and, service to address the social, civic, economic, and environmental needs or issues of our state, nation, and world. Outreach activities include, but are not limited to, credit and non-credit instruction, technical assistance, applied research, certificate programs, and analytical services.

CES will provide the leadership and network to broaden its resource base to better serve the state within the framework of its stated mission. Electronic transfer of information may in many instances enhance the delivery of programs and information, but it will not completely replace the local one-on-one assistance needed and requested by South Dakota citizens to aide in applying the research-based information to their farm, ranch, home, family, and/or community.

Rapid changes in technology coupled with societal changes demand that CES as an organization adopts a more integrated and collaborative model for structure and function as it enters the next century.

In other words, to ensure that future generations are as well served by CES as past generations have been served, CES must change in function and structure to meet new and emerging needs and issues. The mission of CES must be accomplished more effectively and more efficiently.

CES Organizational Review

The South Dakota Legislature Appropriations Committee, through the Board of Regents for Higher Education, requested a review and evaluation of CES.

A set of questions was developed to help focus the input, which examined the basic functions of CES. Response to the questions and additional input was then solicited from partners, stakeholders, non-extension family, end-users, and staff. County Extension Agents, State Specialists, and administrators provided the leadership for this data collection.

Responses and input received are summarized as follows:

A majority of respondents strongly desired to preserve a CES presence in every county, even though many of the local county governments are struggling financially. Strengths of CES identified by respondents included:

- unbiased information resource,
- user friendly,
- responsive,
- programs are locally driven and meet the needs,
- research-based information, and
- programs for agriculture, youth, and family.

A majority of the people recognized that all organizations need to change, including CES. There was not a clear message on the need for "specialized" versus "generalist" county field staff. The need for specialization was identified, but not at the cost of eliminating the "generalist" function of the field staff.

Barriers to change identified by respondents included money, distance, geography, tradition, human resources, and time to accomplish all that may be needed. CES can not be all things to all people.

There was an interest in participating in credit and non-credit courses, especially for place-bound learners.

People are willing to travel to area or regional educational functions, as they are currently doing to shop, obtain medical services, and attend sports functions.

Delivery of educational programs can vary but need to be tailored to the topic or issue, i.e. financial or stress-related topics lend themselves more to one-on-one rather than large meetings or the Internet.

It is imperative that all three partners (county, state, and federal) remain involved with regard to financial support and identification of program issues.

CES needs to collaborate and partner with other agencies and share in the credit but not be duplicative.

As previously stated, the South Dakota CES mission, "To help people improve their lives through an educational process that uses science-based knowledge focused on issues and needs," will remain intact and serve as the foundation for the future functions and structure of the organization.

Extension's county, state, and federal partnership is seen as a strength and needs to be maintained and enhanced. The grassroots connection enables the state and federal partners to be on target with their efforts and ensures that the resources they provide are used efficiently. Having a presence in every county helps to maintain that connectivity.

CES in the 21st Century

CES cannot continue to try to be all things to all people. Mission, core programs, and core values will be the central themes that drive the function and structure.

The structure will not be the end but the means by which the mission, core programs, and core values will be accomplished. Structure will determine the distribution of human resources, allow for geographic differentiation across the state, and network the system.

CES will focus its programming efforts into three CORE programs:

- Agriculture and Natural Resources
- Youth Development/4-H
- Family

CORE PROGRAMS

Through research and education, CES's goals are to empower the agricultural system, people, and communities with science-based knowledge that will . . .

Improve competitiveness in domestic production, processing, and marketing.

Ensure an adequate food and fiber supply and a safe food supply through improved science-based detection, surveillance, prevention, and education.

Enable people to make health-promoting choices through nutrition research and education.

Enhance the quality of the environment by building on a better understanding of agriculture's complex links with soil, water, air, and biotic resources.

Address the economic and social challenges facing our youth, families, and communities:

- Through experiential learning and education, CES will empower youth with the "life skills" needed to be successful, caring, confident, contributing members of their families, organizations, and communities as youth and adults.
- From its beginning, CES has relied on the empowerment model of education for families, with the belief that the family is the most effective and efficient unit for building a competent society. CES helps families develop the skills needed to nurture, support, and guide members to grow in economic security and to contribute to and be supported by caring communities.

CORE VALUES

Core values will define the CES organization as it carries out its mission and works to meet specific goals. The core values will be . . .

Responsiveness
CES will exceed client expectations as far as the timeliness and quality of information/programs presented. CES will continue to do so, because the client's amazement today becomes tomorrow's expectations. Clients expect real-time responses.

Excellence
The motivating factor for CES's continual growth and improvement will be commitment to excellence in programs. Needs of clientele will be met by planned, focused, impact/output driven programs.

Accountability
Relevant, useful data will be gathered for making decisions about organizational changes, allocation of resources, program priorities, staffing patterns, and professional development for CES personnel.

Credibility
CES will address problems and issues with unbiased analysis and research-based answers.

Respectful
CES will not make decisions for the citizens of the state but will present alternatives and assist them in the decision-making process. All CES personnel will treat their clients and staff with dignity and respect.

Catalytic
Through cooperative efforts and collaborative partnerships, CES will help cause change across the South Dakota. We can not cause it to happen alone, but working together we can assist people and communities to frame their futures.

FUNCTIONS AND STRUCTURE

Input was solicited regarding the primary functions CES should maintain, add, and enhance. Responses suggested that CES should focus on programming or providing information on agriculture and natural resources, youth development/4-H, and family.

CES needs a presence in every county, but it can not be expected to have resources located in every county to address every issue, problem, or question that may arise. Nor does CES presently have the fiscal ability to place specialized human resources in every cluster (1 to 4 counties currently make up a cluster in the state).

State Specialists located at South Dakota State University and the West River Agricultural Center will provide program leadership and technical knowledge on specific problems or issues. State Specialists also will serve as natural liaisons to the research community if a given problem does not have a research/knowledge-based answer.

Currently, 110 County Extension Agents are located in county facilities across the state. The current staff includes 60 agricultural agents, 44 family and consumer sciences (FCS) agents, and 6 youth development/4-H agents. The agricultural and FCS agents also spend about 30% of their time on 4H/youth-development programming.

Table 1 and Table 2 indicate current and proposed future staffing for county staff and State Specialists and the proposed changes that will allow CES to be financially responsible yet have the flexibility to meet clientele needs. These changes will be implemented by the year 2001.

Table 1. Current and Future County and State CES Staffing

	CURRENT STAFF*	CHANGE	FUTURE
County Staff	110 County Extension Agents	-9.0 FTEs	102 County Extension Educators
State Staff*			
Economics	8.55 FTEs	-1.8 FTEs	6.75 FTEs
Dairy	1.1 FTEs		1.1 FTEs
Animal & Range Sciences	6.4 FTEs		6.4 FTEs
Veterinary Science	1.25 FTEs		1.25 FTEs
Agricultural Biosystems Engineering	4.14 FTEs	-0.5 FTEs	3.64 FTEs
Horticulture, Forestry, Landscape & Parks	1.2 FTEs		1.2 FTEs
4-H/Youth Development	4.2 FTEs		4.2 FTEs
Family & Consumer Sciences	5.0 FTEs	-1.0 FTEs	4.0 FTEs
Plant Science	7.25 FTEs		7.25 FTEs
Ag Communications	4.34 FTEs	-1.52 FTEs	2.82 FTEs
Administration	7.27 FTEs	-1.0 FTEs	6.27 FTEs

* On state-appropriated and Smith/Lever funding, FTEs on federal-restricted or special project dollars are not included.

Financial implications of changes in CES staffing

8 Field Staff FTEs X 20,000	=	$160,000
4.82 State Specialist FTEs	=	$259,769
1.0 Administrative Staff FTE	=	$ 45,000
		$464,769

$464,769 potential savings available to address:

Salary Enhancement Plan -- FY2000 + 2001 =	260,000
Promotions	?
Implementation cost of technology delivery systems	?

Alternative sources of funding are being sought to fund implementation of the technology delivery systems.

Table 2. Current and Proposed CES County Staffing

	Current County Extension Agents	Future County Extension Educators
Agriculture	60	--
Livestock/Dairy	--	21
Agronomy/Horticulture	--	26
Family & Consumer Sciences	44	28
Farm Management/Marketing	--	2
Youth Development/4-H	6	25
TOTAL	110	102

CES structure is based upon the identified functions and resources available today and in the immediate future. We are striving to maintain a balance as we address current function and structure while transitioning into the proposed model for function and structure.

CES is proposing a new model for the organization built on the strength of the three-way federal, state, and county partnership. County and local ownership will serve as the cornerstone for the new model or the expansion of the cluster system into Field Education Units (FEUs).

FEUs will have specialized staff to address the core program areas. The new staff structure will look like this . . .

- 21 livestock/dairy
- 26 agronomy/horticulture
- 28 FCS
- 2 farm management/marketing
- 25 youth development/4-H

The challenge CES faces is serving the people with specialized field staff and still being the only resource in the area to address the general questions and/or to have sufficient resources to have both general and specialized agents. Each agent or local staff person can not be expected to be knowledge able in every subject matter area; however, that expectation or need for knowledge/service must and will be met by the system through a new structure or design.

The new staffing map of County Extension Educators within each Field Education Unit reflects proposed positions by 2001, assuming continual level funding. Each of the units will have the specialization necessary to address the needs and issues based on its principal agricultural enterprises and societal needs, without sacrificing the ability to address the general broad-based issues. The FEUs will replace the current cluster system.

Table 1 depicts State Specialists staffing to be achieved by the year 2001. Administratively, CES proposes to move toward:

1.0 FTE CES Director,
1.0 FTE Agricultural & Natural Resources Program Leader
1.0 FTE Youth and Family Development Program Leader
3.0 FTE District Extension Supervisors
1.0 FTE Technology/Off Campus Credit Course Coordinator

Positions currently being advertised for field staff positions reflect the concept of the new model though staff have not been involved in the new Field Education Unit concept. The Field Education Units do not have all of the specialized areas represented. Over the next 2 years, CES will be hiring or training staff for these specialized FEU positions.

The proposed changes in field staff, State Specialists, and administrative staff will occur over the next two years as CES moves forward to implement a more efficient and effective operational model.

Changes in the responsibilities for the area farm management agents will help offset the reduction in 1.8 FTEs within the Economics Department. This shift will actually result in an increase in response to marketing needs and be closer to the anticipated end-user.

Anticipated retirements will give CES the flexibility to redirect positions in Administration, in the Agricultural and Biosystems Engineering Department, and in the Ag Communications Department. The Technology Off-Campus Coordinator position will be a redirection from one of the pre-sent administrative staff positions and potential retirements.

Salary savings will give CES flexibility to hire new staff above base, with more subject matter expertise. It also will provide start-up dollars for the technology model of distance education.

A name change for County Extension Agents to County Extension Educators will better describe their roles and functions. The County Extension Educators are state employees (SDSU-BOR) located in a specific county and serve the unit in the identified subject matter area.

Stakeholder input suggested the following roles or functions for field staff, and the rank order supports this name change. The roles identified:

- Educator
- Problem solver/coach
- Information resource
- Facilitator

The role of the State Specialists will remain as currently defined and as per the input of the stakeholders. State Specialists are educators, applied researchers, trainers, problem solvers and scientists. The traditional specialist role of providing unbiased interpretation of research for industry use and application will continue to be as viable today as ever.

Biotechnology and other basic research techniques will continue to add to the virtual glut of information that producers must evaluate when making decisions. State Specialists will provide the enhanced technical training for the County Extension Educators to empower them to become more specialized by enhancing their technical expertise.

State Specialists will also play a key role in distance education via the development and delivery of workshops, short courses, Internet courses, and publications. State Specialists will continue to do applied research and serve as the link to other researchers.

PROFESSIONAL DEVELOPMENT

Professional development for County Extension Educators to achieve specialization and the seamless transfer of information and programs will focus on a mentoring program and discipline focused continuing education.

The mentoring program will begin on the first day of employment with an orientation by the district supervisor on the mission of CES, the core values that define CES, and three core program areas.

The new employee will be assigned a mentor from within his/her FEU, and an appropriate mentoring plan will then be forged in partnership with the district supervisor and the local extension advisory board.

Continuing education for County Extension Educators will be accomplished via a fluid multi-phased program. Each phase of the continuing education model is designed to assist the County Extension Educators to meet the needs of the clientele locally and statewide. The model is as follows:

Current Issues
State Specialists will disseminate information on issues requiring immediate response. An example would be the programs done in response to the people and livestock crises arising from the winter of 1997. Information will be shared with all agents and be interdisciplinary when applicable.

Update Issues
Updates about pending and emerging issues will be given in a subject matter area by a State Specialist(s).

Core Competencies
In-depth training in a given subject matter area will be directed by a State Specialist or group of State Specialists to establish a base knowledge or core competency. Subject matter material will be presented with an applied emphasis.

The intent of this training will be to establish a base of knowledge within each subject matter area common to all agents with a specialty or emphasis in a given area. All new County Extension Educators will complete this phase of the training within six months of employment.

Area of Emphasis
Non-credit courses for County Extension Educators will be taught by a State Specialist or a group of State Specialists based on an area of subject matter emphasis.

Basic and applied knowledge will provide the backbone of the courses with an emphasis on the development of critical thinking skills and a holistic approach to problem solving, i.e. the County Extension Educators will become information managers.

Resource Management
Professional improvement opportunities for the County Extension Educators will enable them to develop leadership and resource management skills.

Credit courses
Credit courses will be continued for County Extension Educators wishing to pursue advanced degrees.

CES is exploring ways to seamlessly connect the county offices within the Field Education Units. Currently all county computer systems have been upgraded to a minimum standard, equipped with single universal e-mail software package, and all will be receiving a 4-H enrollment software package. These steps will enhance communication within the system.

One technology method being explored to better serve customers will be the implementation of a 1-800 connection among the county offices within the new FEUs. Calls can then be transferred to the appropriate resource with a minimum amount of disruption to the customer. Answers can be provided in real time response. Information gathered thus far suggests that the 1-800 number may have limited availability due to the number of phone service providers in the state, but this investigation is ongoing.

ADVISORY BOARDS

Expanded advisory and planning boards will ensure the continuation of the identification of grassroots needs and fully reflect the issues and priorities of the local communities and the state. The advisory board structure for CES will be:

County Extension Advisory Board

Charge: Provide guidance and direction for the County Extension Educators facilitating extension educational programming that target priority needs and issues of the counties. The County Extension Advisory Boards will work with the District Extension Supervisors as SDSU's CES representative.

Appointed: As per South Dakota statute, "the County Commissioners . . . shall appoint a county extension board of five to seven members, at least two members shall be farmers and one member a member of the county commissioners who may also be one of the farm representatives . . . The membership shall be representative of the racial population mix of the county and of the various interest groups served by extension."

Reporting line: CES District Supervisor.

Field Education Unit Advisory Board

Charge: Provide guidance and direction to the County Extension Educators facilitating educational efforts for the FEU.

Appointed: Members to be elected from each county educational unit, one per county, representing their county extension advisory board.

Reporting line: CES District Supervisor

State Extension Advisory Board

Charge: Provide statewide guidance and direction to the Cooperative Extension Service through the Director of Extension.

Appointed: Members to be elected from the 13 FEUs, two per unit, composed of representatives of the County Extension Boards and one representative from the Bureau of Indian Affairs, to ensure broad-based input from local constituents.

Reporting Line: South Dakota CES Director.

State-Wide, Long-Range Planning Board

Charge: Solicit and coordinate input from multiple, statewide constituencies to ensure that state priorities and goals are being addressed through CES.

Appointed: Presidential appointments from business, industry, education, agriculture, government and other constituent groups.

Reporting Line: President of SDSU.

Campus Resource Council

Charge: Identify SDSU resources available to CES, coordinate program delivery and provide efficient access to educational expertise and opportunities.

Appointed: Council members will be appointed jointly by the Vice President of Academic Affairs, Director of CES, and the Dean of the College of Agriculture and Biological Sciences with representatives from academic colleges and other campus units. The Council will be chaired jointly by the Vice President and Director.

Reporting line: President of SDSU.

User Fees

The issue of external funding for CES is not a new one. In 1987, the Federal Futures Task Force recommended to Extension Committee on Organization and Policy (ECOP) and the System that "Both federal and state leaders should review alternative funding sources such as grants, subcontracting with other agencies, and users' fees."

It was noted by the task force that each of the proposed alternatives was not without some problems, i.e. grant sources might control program content, subcontracting might lead to control issues and

user fees might exclude those with the greatest need from participation. Since the initial report, several more reports have been presented to ECOP and CSREES indicating the need for CES to explore alternative avenues of funding.

ECOP's Personnel and Organizational Development (PODC) further identified what they believe are the fundamental values that should guide the Cooperative Extension System. Alternative sources of funding must be aligned with the mission of the state system and not compromise the content or integrity of programming efforts. All funding must be generated within the regulations and definitions as set forth by the United States Department of Agriculture (USDA).

The USDA legal rulings and administrative guidelines:

Clearly preclude charging user fees to offset the salaries of Cooperative Extension faculty and staff who are funded at least in part with county, state, or federal general purpose revenues. In compliance with this federal policy, state and county cost recovery efforts may not extend to the salaries of these personnel.

Require that fees are not substituted for state or county appropriated funds.

State that fees can cover only the cost incurred and that clients be informed what the fee includes.

Aside from the exceptions as listed below, USDA policy further defines charging user fees for "basic educational services" as:

Identifying county and statewide issues and developing related educational programs conducted by agents, specialists, and trained volunteers.

Providing access to the knowledge and research base of the University through applied research and instructional offerings of University-based specialists.

Providing instruction, conducting applied research, and evaluating programs following plans of work.

In accordance with USDA guidelines, **educational activities and service for which fees may be charged** to partly or wholly recover costs include the following: like mediated instruction transmission and associated costs (e.g., videoconference production and transmission expenses), publications and other materials, computer analysis, computer software, and the overhead costs associated with providing these types of enhanced services.

Conference-related activities that contribute to agent and specialist teaching, such as expenses for outside instructors, materials, specialized electronic equipment, audiovisual equipment and rental costs for meeting rooms.

Services provided for extension-related organizations. Such services include printing and distributing newsletters, rental costs for meeting rooms and providing expendable supplies. The financial contribution of these organizations should be accounted for as an offset to overall county extension office budgets. Example: commodity groups, green industry, and the American Association of retired Professionals (AARP).

Supplemental educational services such as soil testing, well water testing. and bull testing.

Supplemental educational programs funded entirely through county or private sources.

Non-educational costs, such as meals and refreshments are always subject to full cost recovery.

In summary, these are the general guidelines as put forth by USDA regarding user fees:

All activities for which fees are charged must be consistent with the mission and current program direction of Cooperative Extension.

The opportunity or need to collect fees shall not be a determinant in setting program priorities, evaluating program results, or in evaluating employee performance.

Revenue generated from program fees shall be used exclusively for expenses related to the enhancement of Cooperative Extension programs.

Cooperative Extension programs are open to everyone, regardless of their ability to pay. Provisions must be made to reduce or waive fees when an individual is unable to pay. Brochures and materials that list a program fee must also state the fee will be reduced or waived when an individual makes it known they are unable to pay the fee.

(The above information was summarized from USDA administrative guidelines, the *USDA Administrative Handbook,* and various documents regarding fees for service as presented by the work group on alternative revenue to PODC.)

Distance education offers the opportunity to generate user fees for the use of county facilities as site locations and/or for the dissemination of information. It can not be assumed that county facilities will be able to be used free of charge. Therefore, as distance education opportunities are planned and budgeted, expenses for the use of county facilities will need to be considered.

Maintenance of a strong county partnership and cooperative working relationship may be critical to the financial feasibility and success of non-CES distance education opportunities.

Distance Education

Land grant universities originally provided access to need-based education to those in sparsely populated areas and areas where affordable need-based education was not available. Access today has new meaning with the significant economic, social, demographic and technological changes of the 20th century, particularly the later half of the 20th century.

Social change has been dramatic. Many Americans, including South Dakotans change and will continue to change jobs/occupations during their lifetime. One's education may be adequate for part of one's life but inadequate for another.

SDSU must continually assess how it can best serve the changing educational needs of the people of the state. CES can and will be the heart of the statewide network of educational opportunities for all South Dakotans. Since its beginning, CES faculties located on the SDSU campus and in every county have helped citizens identify the informal education needs and develop programs to meet those needs.

CES will expand its networking and educational programming across the regental system giving local access to credit and non-credit courses, formal and informal educational opportunities. In short, CES distance education will be education available to citizens not resident at one of the system campuses and an education that draws upon the knowledge base of SDSU.

THE TECHNOLOGY MODEL

The technology model has two goals:

Goal One
Enhance and update the current model for information transfer and distance education used by CES, increasing use of appropriate technologies that optimize effectiveness as well as offer time and distance related efficiencies.

Objectives:
- Enhance and incorporate current technology into the distance education model.
- Adopt new technologies that enhance information transfer opportunities.
- Develop a plan for integrating frame relay technology for video, data and voice transmission using Internet Protocol (IP) networks.

Goal 2
Provide fluid opportunities to integrate a wide variety of collaborators in order to participate in the delivery of programs to clientele throughout South Dakota.

Objectives:
- Provide for information cross-over from other sources within SDSU.
- Provide for information cross-over from the South Dakota University System.
- Provide for connective opportunities with South Dakota technology enhanced K-12 systems.
- Provide for technology connective to State and Federal Agencies that partner with the SDSU Extension Service.
- Provide multi-state linkages and multi-state cooperative programs.

Goal one requires that CES look at implementing three levels of technology. The type of interaction between the Extension Educators and the clientele served dictates these levels.

Level One Technology
This is a one-on-one informational interaction level. The client needs information about a specific issue or problem and the time frame is immediate. In this case, CES would build on the current technologies in place and enhance them with strategic new equipment.

County Extension Educators and State Specialists would be equipped with digital still cameras, 3D scanners and personal conferencing Internet-based capabilities. These technologies would be

enhancements to the current installed base of computer equipment and Internet-based capabilities.

These capabilities dubbed "Tele Extension" are similar to the TeleMedicine system used by the rural heath care providers in this state. It provides just-in-time, client-specific, issue-and-need-based information delivery.

Following the model of health care, CES would use the power and expertise of State Specialists and other SDSU resources to provide increased expertise to the FEUs. In the future, these same capabilities will be carried into the field with the use of the new wireless technologies.

An example of this level would be that the County Extension Educator takes the digital camera to the field or the farmer or rancher brings a sample to the office, and the County Extension Educator uses the 3D scanner to send the information to a State Specialist via the Internet.

Level Two Technology

This is the group-time independent educational opportunity. This is educational client interaction, which does not require a constant face-to-face meeting. The technology would be a computer-based web server. CES's current Internet server would be used to deliver the web-based material using distance education based software such as Web Course in the Box. A course, workshop, or seminar would be housed on what would be called the Extension Rural Educational Network (EREN) server.

This type of educational opportunity would be developed by State Specialists and enhanced by County Extension Educators, using the technologies from level one. County Extension Educators would become mentoring guides to learners in the field.

This level also would have the capability to support delivery of Internet-based University as well as Unified University System-wide course content. K-12 systems could also be involved as receiving sites of the Internet-based courses, training, and workshops. Their computer labs could provide a meeting point for group learner interaction where the human touch would aid in the technology-based training transition.

Examples would be pesticide re-certification training or food safety seminars for day care providers. Both could be done as learner-centered, time-independent, and collaborative educational programming.

Level Three Technology

This is a group, face-to-face, interactive-based distance educational opportunity. The Extension Interactive Educational Network (EIEN) will be IP/Internet-based using frame relay technology. This is the highest cost and most technology-heavy level of the educational offerings.

Level three provides fluid opportunities to integrate a wide variety of collaborators in order to deliver programs to clientele throughout South Dakota.

Because of the cost, as well as the support nature of the technology, it is suggested that the hardware be located in strategic points within the state. In order to broaden the power of this level, the technology chosen would allow the K-12 video networks currently being installed though out the state to be accessed.

This level would also integrate the technologies of the previous two levels to further enhance the educational robustness of the system. The EIEN would allow for a seamless integration of the University and the Unified University System to deliver via distance education to various EIEN and K-12 sites across the state.

The ability of state and federal partners to interact with Extension and its clientele through EIEN would be extensive. This interaction may take the form of joint meetings, workshops, or consultations.

Projected Technology Costs

Level One and Level Two technology costs are well known and can be determined very accurately. Level Three costs are harder to determine because technology and implementation f new standards are changing very rapidly.

IP-based distance education technology is suggested, because even though other technologies have a lower initial cost, their sustained costs are higher for the long term and quality is less. IP based technologies are higher up-front costs but lower on a continuing basis for better quality. Finally, IP-based technologies for distance education is the direction CES needs to go in planning for distance education.

Table 3. Projected Technology Costs

	Technology	Cost	Number	Total	Time Frame to Implement
Level One	Digital Camera	$300	40	$12,000	3 - 6 mo.
	3D Scanners	$100	40	$ 4,000	3 - 6 mo.
	Desktop Video Camera	$250	100	$25,000	3 - 6 mo.
				$41,000.00 Total Level One	
Level Two	Server Software Contract	$3,000/Year		$3,000	9 mo. - 1 year
				$3,000 Total Level Two/Year	
Level Three	Single Telecom Unit	$25,000	10	$250,000	2 years
	Double Telecom Unit	$50,000	4	$200,000	2-3 years
	Media Server	$25,000	1	$ 25,000	2 years
	Frame Relay Lines	$29,280	10/year 14 sites	$ 29,280	2 years
				$504,280 Total Level Three	
				$ 29,280 Recurring Level Three Cost	
				$548,280 TOTAL OF ALL LEVELS	

THE INFORMATION MODEL

A variety of informal and formal educational opportunities will be made available to individual citizens, groups, businesses and partnering organizations:

Workshops
One- to two-day sessions designed to address a given topic in depth.

Short courses
Three- to five day sessions to deal with a topic or several interrelated topics.

Certificate Programs
Programs of variable length, with subject matter and attendance requirement for the participants to receive a certificate.

Credit Courses
Courses offered for credit to assist individuals in completing requirements for a degree program.

Any one of the above educational opportunities may be presented using a variety of educational methods and/or technology delivery systems.

An example of a new opportunity for multi-college collaboration and distance education fulfilling a local need is the proposed Rural Leadership program from the College of Education and Counseling at SDSU.

Rural communities can be isolated from the mainstream of traditional degree programs making it difficult for learners in these communities to complete a required degree program for their current or proposed career change.

CES County Extension Educators can organize, promote, and facilitate an outreach site and class for a given program. The benefit of a rural leadership course offering would reach beyond just meeting a degree requirement, but spill over into the future development of the community.

Rural constituents indicated an interest in credit courses, depending on course content and perceived value it may offer to them individually and as a community.

Summary

CES plans to meet the needs of the clientele in the 21st century via the following:

Brokering the resources from the total University to better serve the people of South Dakota.

Expanding advisory and planning boards to ensure that grassroots needs continue to be identified and to fully reflect issues and priorities of the local communities and state.

Focusing on the three core program areas of agriculture, youth development/4-H and family.

Abiding by the core values of responsiveness, excellence, accountability, credibility, respectfulness and being catalysts in the community and across the state.

Expanding the county clusters into Field Education Units.

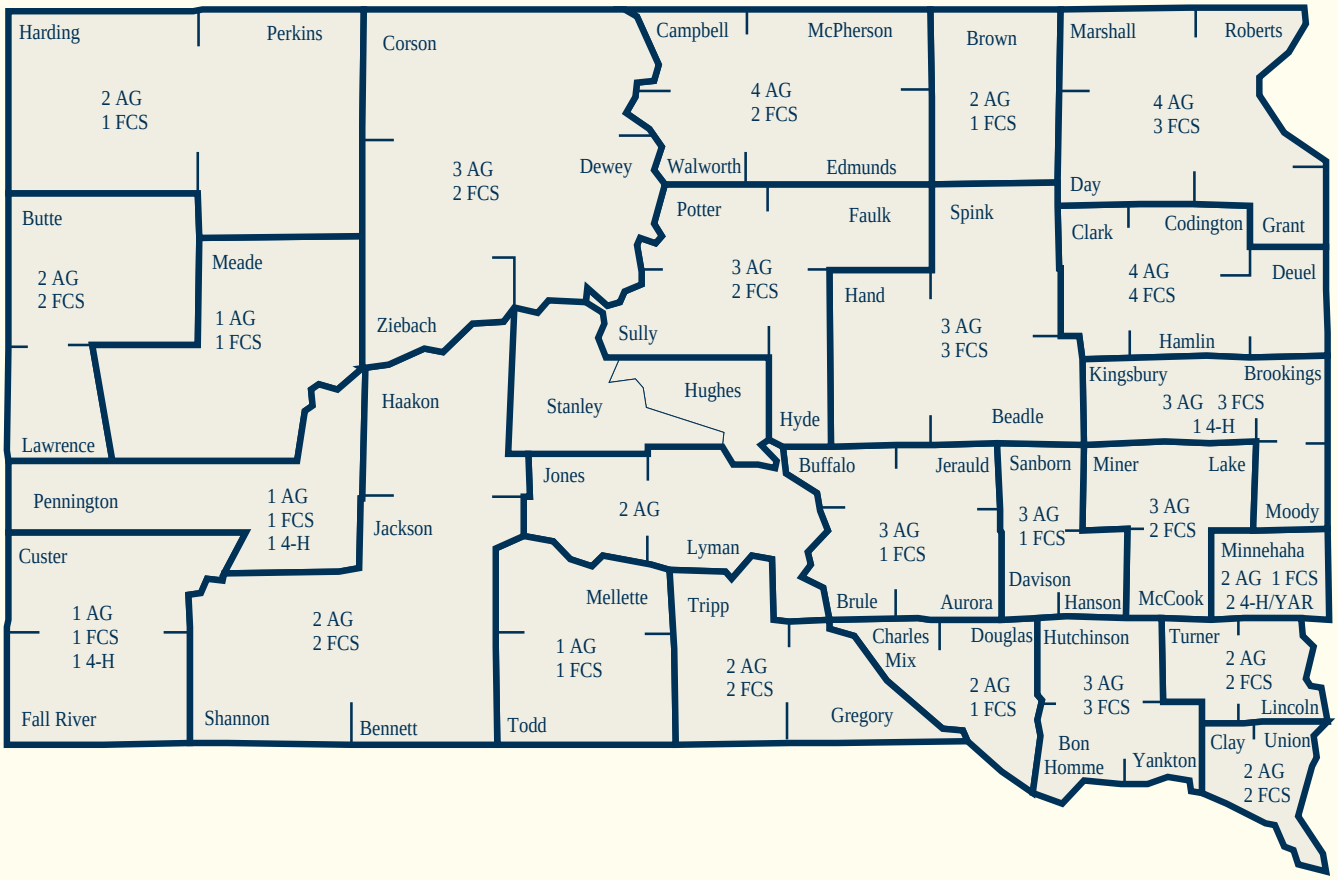
Increasing the subject matter expertise of the County Extension Educators while maintaining their ability to provide answers to problems and issues as related to the three core program areas.

Accomplishing these goals with targeted hiring, mentoring programs, and core competency training.

Adopting new technologies, where and when appropriate, to enhance the delivery of programs, including both credit and non-credit courses.

Completing implementation of the changes in CES function and structure by 2001.

Current CES County Staffing Positions



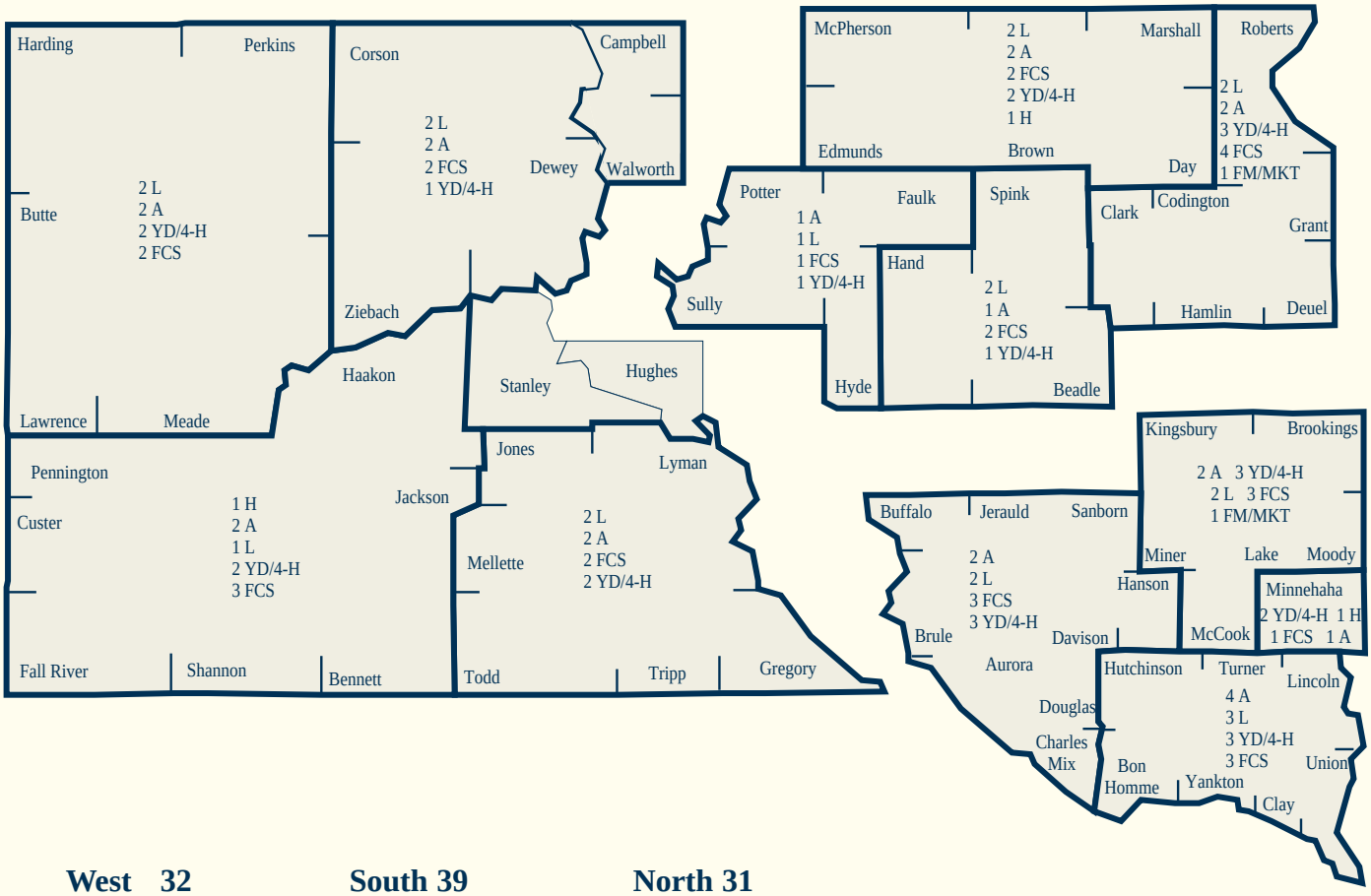
West 28
15 AG
11 FCS
2 4-H Youth

South 46
25 AG
18 FCS
3 4-H Youth

North 36
20 AG
15 FCS
1 4-H Youth

Area of Emphasis
AG = Agriculture
FCS = Family & Consumer Sciences
4-H Youth = AG & FCS

Proposed CES Field Education Unit Staffing Positions



West	**32**	**South**	**39**	**North**	**31**
7L	8A	7L	9A	7L	6A
1H	9FCS	1 H	10 FCS	1H	9FCS
7 YD/4-H		11YD/4-H		7 YD/4-H	
		1 FM/MKT		1 FM/MKT	

Subject Matter Focus

L = Livestock A = Agronomy H = Horticulture

FCS = Family & Consumer Sciences YD/4-H = Youth Development / 4-H

FM/MKT = Farm Management / Marketing

Resources

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COOPERATIVE EXTENSION SERVICE
SDSU

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Extension Vision for the 21st Century