Opportunities and Challenges in Cooperative Extension for Agricultural Economists

James C. Hanson

Though there are many challenges facing extension economists, there are significant opportunities to serve rural America and fully participate in our profession. National studies have reconfirmed extension as an integral part of our land grant mission, and a survey of chairs of departments of agricultural and resource economics shows that 87% indicate that there is increased or constant pressure by the public for programing by extension economists. Retirement estimates provided by chairs suggest it is likely that at least one-half of new faculty hired over the next five years will have extension appointments. Perhaps most importantly, there are critical societal issues to which extension economists can make valuable contributions.

The land grant system is a uniquely American educational institution that has served our citizens well since its creation. Its historical mission has been one of service to the "disenfranchised . . . to make democracy work by empowering people with information and the ability to participate" (Skees 1992, p. 1244). In general, we can see the Morrill acts of 1862 and 1890 as university initiatives for rural peoples; the 1914 Smith-Lever Act as creating nonformal educational opportunities for farm families; and the 1994 Elementary and Secondary Education Reauthorization Act as incorporating the twenty-nine institutions of Native Americans into the land grant system. Overlaid on these educational services is the 1887 Hatch Act, which provided a scientific foundation to such efforts. According to James Bonnen (1992, p. 1261), however, "the only truly unique part of the land grant system is cooperative extension." It is the extension mission that I wish to direct my comments toward today, specifically discussing the challenges and opportunities for agricultural economists. Before I do so, however, I would like to make four introductory comments.

First, excellence in extension programing is sometimes difficult to define, but "we know it when we see it." That said, Kohl, Shabman, and Stoevener (1987) provided a useful definition of economic extension work with three characteristics: (1) data are analyzed/interpreted and management information is presented to audiences (educational input), (2) a decision is made or behavior is changed (educational output), and (3) because of this educational interaction, there is a positive effect on social welfare. I would also add as emphasis to Kohl's definition that excellence in extension programing is achieved when we meet the needs of the audience we are serving. Extension, in general, has been criticized for "continuing to answer questions that farmers are no longer asking" (this critique applies to our other audiences, too). Also, successful extension work requires a specialist to interact personally with the people he/she is serving. It may be necessary, but it is not sufficient to simply make a mass mailing of a report, however user-friendly and timely it is. We must be able to put a "face" on our efforts; we need to go the final step and complete the process through personal communication with our audiences.

Second, it is easy in this type of discussion to criticize, on behalf of our speciality (in this case, extension), the other two legs of the land grant university's tripartite mission (research and teaching). This is a mistake for all of us; the uniqueness and success of the land grant system are based on combining these three missions in excellence of service to our students (undergraduate and graduate) and to our citizens (through research-based, off-campus education). This issue is not zero-sum game; productivity is increased synergistically through collaboration and teamwork.

The author is assistant director and program leader for agriculture and natural resources in the Maryland Cooperative Extension Service and an associate professor in the Department of Agricultural and Resource Economics, University of Maryland, College Park. He would like to thank his extension colleagues at Maryland for their helpful comments.

Third, in discussing the challenges and problems facing us in extension, we are forced to generalize, and the generalization can be less than positive. I have friends and colleagues involved in excellent extension programs, and I know of others by professional reputation. That said, my comments today are addressed to the issue that while the extension glass is half-full, it is not full—and it should be.

Finally, I conducted an e-mail survey (Cooperative State Research, Education, and Extension Service list serve) of chairs of agricultural and resource economics programs in the United States in spring 1997 regarding extension issues. In addition to e-mail, through a combination of faxes and phone calls, I was able to obtain responses from all fifty states. The questions were:

1. If your dean approved the immediate search for two extension positions in your department, in what extension specialty/subject matter would you want them to work?
2. Relative to the late 1980s, is there "increased/about the same/decreased" public pressure in your state for extension programing provided by agricultural and natural resource economists?
3. Are extension faculty in your department on tenure track appointments?
4. In the next five years, how many of your total departmental faculty do you *estimate* will retire (including those for which a search is currently being conducted)? What is the average extension percentage appointment for these lines? List either individually or as an average for the group. (For example, four people with an average extension appointment of 50% may retire, or two people with 0% extension appointment and two people with 100% extension appointment may retire.)

Three states did not have extension specialists in departments and, as a result, did not answer questions 1 to 3, and two states had two departments that responded. As a result, my sample sizes (with one abstention on question 2) were 49, 48, 49, and 52 for questions 1, 2, 3, and 4, respectively. The responses to these questions are interspersed throughout the paper.

Challenges in Extension Service

Missing Linkages

Many faculty find extension an isolating experience from their profession and universities. That is not to say that there is not a strong comradery among specialists or between specialists and their clientele, but linkages with fellow agricultural economists are missing.

- Michael Phillips, director of the W.K. Kellogg Foundation Project report on our agricultural economics associations, notes that there is a lack of community within the profession and "that unless I [an agricultural economist] am published frequently in the American Journal of Agricultural Economics, I am not valued in the profession" (1996, p. 5). Of 1,000 agricultural economists who are not members of the American Agricultural Economics Association at universities, Phillips found that 90% have primary appointments in teaching and extension.
- A major conclusion of the National Research Council's evaluation of the colleges of agriculture at the land grant universities was "the need for stronger linkages among the equally important functions of teaching, research, and extension" (1996, p. 3). In terms of the research-extension linkage, we are losing out on the two-way flow between communities and campuses when that connection is weak.
- Peter Barry (1993) concludes that there are weak linkages between research and extension at the departmental level and that this breakdown in coordination is not atypical of funding practices and organizational design at the national/university level.

Two T's: Tenure and Training

Achieving tenure tends to be more difficult with people on extension appointments than for people on research appointments. Whether people join the ranks of extension specialists because they do not like or value research endeavors, which is the basis of many tenure decisions, or whether they do not have time to complete and publish refereed journal articles because of their extension commitments, is difficult to ascertain.

According to the chairs, 63% of the departments have academic tenure for their specialists, 21% have a mix in which some are tenured and some have different contractual relationships, and 16% of the departments do not tenure their specialists in academic ranks. This situation, in which over one-third of the departments treat their specialists differently from other faculty in terms of tenure, probably results from two reasons. First, many university administrators want their specialists freed from tenure worries related to publishing journal articles

so as better to serve their clientele. In other situations, universities have tried to stem the loss of extension specialists, who were productive in the state but were being forced to leave the university because they were not tenured. While not every specialist is concerned by this different tenure structure, it does hinder the recruitment of our best graduates to extension positions. As one chair, from a state where extension specialists were not tenured, commented: "It is unfortunate that extension is treated by the university as second-class citizens while they should be the best; it is easier to educate twenty-one year olds than older business people."

When our graduate students finish their dissertations, they are well trained in economics. Because all their time has been spent with research faculty, most of them have limited knowledge about the responsibilities and work of extension specialists. Unless our graduates come from a farm background or have previous experiences in such organizations as the Peace Corps, there is a great deal of ignorance about the extension mission. As a result, many of these graduates may hesitate to take an extension job or, if they do, there is considerable lag time in developing a solid program.

A "Missionless" Extension?

The National Research Council concludes that "the land grant system has served the nation well, but changes are needed that reflect modern realities, challenges, and opportunities" (1996, p. 11). These challenges that face our parent institutions are not that much different for the Cooperative Extension Service. The problems we face, as regards this loss of direction, include the following:

- Our extension leadership has not been clear regarding the goals we should be pursuing (Wallace 1988). Also, I believe that our extension administration is, in general, more interested in "process" than in "content." We spend an enormous amount of time in extension identifying stakeholders, conducting needs assessments, getting buy-ins, developing elaborate individual and organizational plans of work, and then creating a reporting system. While these functions are important, they take away from actual delivery of programs.
- McDowell (1992) notes that we have been held hostage by our traditional audiences (agriculture) so that we cannot serve our nonfarming audiences. National commodity associations, county farm bureaus, soil conservation districts, and local farmer groups expect and appreciate extension's support, but are these our only audiences? With this entanglement, extension is trapped in a downward spiral in which the groups we support experience declining ability to deliver needed political and financial support, yet new audiences that we can serve may not offer any better support.
- Increasingly, many of the services that extension offers are also supplied by the private sector. How we complement the private sector's services is a question that seems clear at the conceptual level, but becomes more difficult to implement at the local level.
- Many departments, with retirements of extension faculty, have lost their institutional memory as to what constitutes excellence in extension programing. As a result, there is not a clearly defined departmental extension mission concerning what needs to be accomplished, and for those inspired specialists, there is not much support.

Stable Funding with Increasing Needs

Funding for extension services is not good, but it is no worse than for research. Table 1 shows funding for the Agricultural Experiment Station (AES) and the Cooperative Extension Service (CES) from 1983 through 1995 as measured in real 1995 dollars. Hatch Act/Regional Research Funds and Smith-Lever 3b and 3c represent federal formula funds for AES and CES, respectively. Competitive grant funding for both was not included, which may particularly underestimate the support for research, although extension also raises monies this way. Moreover, Marchant and Zepeda conclude that "social science research funding is becoming scarcer thereby increasing the relative importance of teaching and extension" (1995, p. 1327).

Total funding for both, in real terms, has remained the same over this thirteen-year period, though both now receive less in federal funds and proportionally more in state funds. The problem for both groups is that the funding has remained constant. In 1983, the CES total relative to the AES total, Smith-Lever relative to Hatch/RRF, and CES state support relative to AES state support were 113%, 163%, and 101%, respectively. Though there were slight changes through the years, in 1995, these percentages were 112%, 168%, and 103%, respectively.

Table 1. Agricultural Experiment Station and Cooperative Extension Service Funding in 1995 Dollars (in Thousands)

	Agricultural Experiment Station[1]			Cooperative Extension Service[2]		
Year	Hatch Act/ Regional Research Funds	States	Total	Smith-Lever Act 3b and 3c	States	Total
1983	216,290	841,634	1,057,924	352,503	845,993	1,198,496
1984	212,420	867,398	1,079,818	344,673	855,131	1,199,805
1985	209,948	912,787	1,122,735	342,028	897,819	1,239,846
1986	196,232	979,327	1,175,559	319,418	965,896	1,285,315
1987	189,004	982,686	1,171,690	316,891	931,318	1,248,210
1988	189,867	991,890	1,181,757	311,234	982,340	1,293,573
1989	181,398	1,017,189	1,198,587	296,927	———[3]	———[3]
1990	171,282	1,023,709	1,194,991	282,496	997,106	1,279,603
1991	173,874	1,023,393	1,197,266	282,654	1,033,837	1,316,491
1992	174,479	985,038	1,159,517	285,369	998,235	1,283,604
1993	169,769	947,109	1,116,878	277,075	961,551	1,238,626
1994	167,594	935,484	1,103,078	280,307	960,668	1,240,975
1995	162,368	944,425	1,106,793	272,582	969,138	1,241,720

[1]SOURCE: U.S. Department of Agriculture (USDA), Cooperative State Research, Education, and Extension Service. 1984–96. "Inventory of Agricultural Research." Table IV-B. Washington, D.C.: USDA.
[2]SOURCE: U.S. Department of Agriculture (USDA), Cooperative State Research, Education, and Extension Service. 1984–96. "Sources of Funds Allotted for Cooperative Extension Work." Unpublished report prepared by the Division of Competitive Research Grants and Awards Management. Table 111.
[3]Data not prepared for 1989.

Opportunities in Extension Service

Extension Is Important and Valued by Society

Perhaps the best opportunity for the Cooperative Extension Service is that society values our purpose, what we do, and how we connect our universities to citizens. While there are challenges to make sure our programs are relevant and efficiently delivered, society wants to improve extension, not do away with it.

- In a national survey, Dillman et al. (1995) found that citizens ranked the services of their land grant university as "very important" in the following percentages: undergraduate teaching, 72%; graduate teaching, 68%; off-campus extension, 54%; teaching older, returning students, 53%; and research, 52%. With $100 of taxpayer money, they would distribute it as follows: teaching students on campus, $45; off-campus education and technical help, $30; and doing research, $25.
- In the survey of chairs, 54% said that, relative to the late 1980s, there is increased pressure by the public for extension programing by economists, 33% said there is the same pressure, and 13% said there is decreased pressure. A summary of the comments by the 87% facing increased or similar pressure would include two points. First, there is increased pressure that results from new regulations facing farmers and the radical changes made in the 1996 Farm Bill. Second, traditional services are still in demand, but increased pressure has come from new areas such as resource/environment, small business, and community development/leadership. In other words, increased demand for extension services comes more from extensive pressure (many new areas) than from intensive pressure (more services in traditional areas).
- Implicit in the National Research Council's review of the land grant universities, in which many of the suggestions are directed toward extension, is that extension is an essential part of their tripartite mission.

Employment Opportunities

The chairs estimated that 195 people will retire from the departments of agriculture and resource economics over the next five years. Of those retirees, there were 71.6 extension full-time equivalents (FTEs), or 37% of the total. If all of these new extension positions were rehired with 100% extension appointments, then 37% of all new hires would have extension responsibilities. If, instead, these new people were hired with an average extension appointment of 75% (suggested by some chairs as the appropriate balance to aid in new faculty obtaining tenure), then 49% of all new departmental hires over the next five years would

have extension responsibilities. If the average extension appointment were 50%, then 73% of new hires would have extension responsibilities. While an argument can be made that it is unlikely that all of the positions associated with retirements will be refilled, it is likely that the percentage of extension hires, relative to research and teaching, will remain at least at current levels. As noted above, 87% of the chairs stated that pressure from the public for extension programing in agricultural and resource economics has remained the same or increased since the late 1980s. Also, the increased discussion by land grant universities to improve their outreach programs creates additional pressure to preserve extension programing at present levels.

Figure 1 shows the types of extension specialty/subject experts that chairs would like to hire. While these responses represent the current demand for extension specialties, they should not be interpreted as a ranking of the value of these specialties to extension programing. For example, if a department already had strong faculty presence in farm management and were offered two new positions, a chair would probably try to balance the program with a new marketing or resource extension faculty.

Of the 132 specialty/subject suggestions, 29% related to marketing and risk (20%, traditional marketing; 6%, horticultural/value-added; and 3%, risk management). Several chairs commented that the 1996 Farm Bill (Fair Act) created additional demand by producers for marketing skills. The second highest category was farm management and finance, with 20% of total requests (15%, farm management; 5%, finance). Eighteen percent of all requests were for natural resource and/or environmental programing; within that category, 6% stated a need for aquaculture, land planning, or water expertise. Sixteen percent of the subject requests were for community and rural economic development. There was some crossover with the demand for extension service for agricultural businesses (11%) because of the similar desire by both categories for small businesses and entrepreneurship training. The "other" category encompassed such topics as the economics of agricultural law, bio-

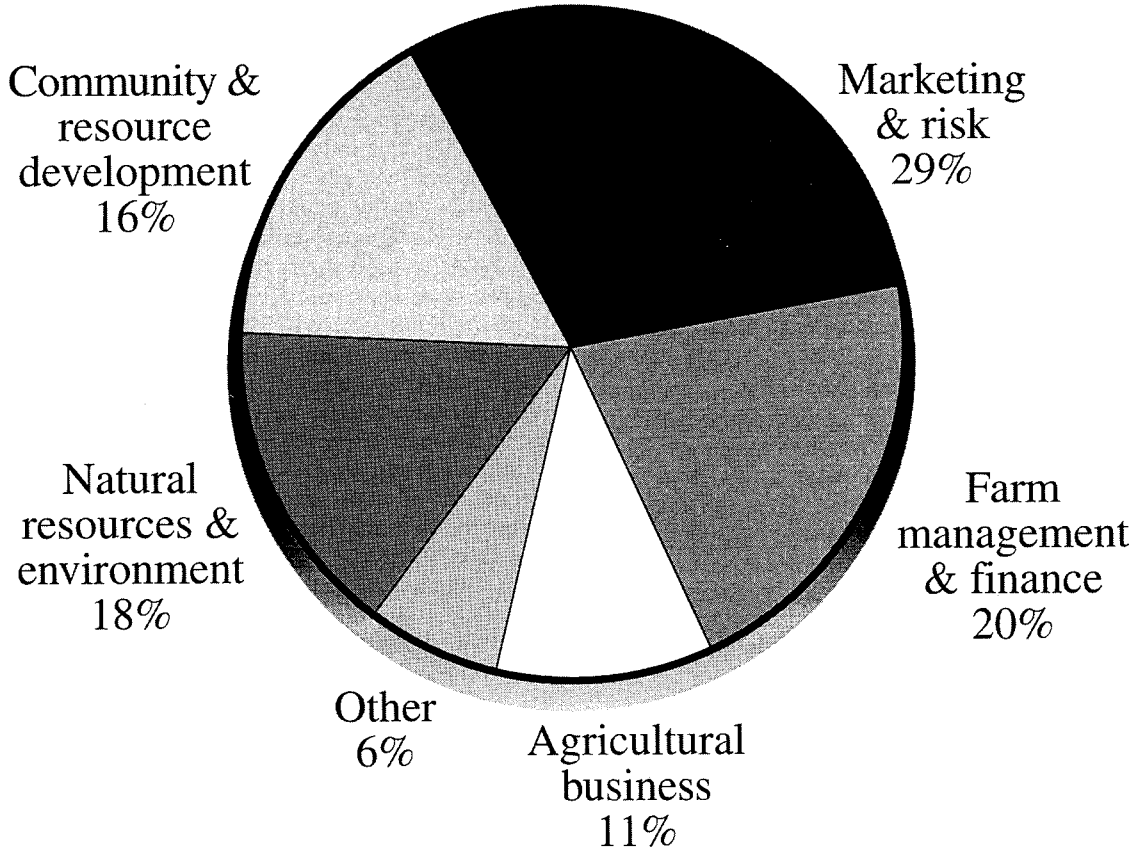

Figure 1. New Extension Hiring Needs
SOURCE: Survey of department chairs, 1997

technology, food safety, and industrialization of agriculture (6%). The traditional subject of extension policy did not segregate as a separate category. Typically, chairs wanted extension specialists with skills in the policy ramifications of environmental regulation, rural economic development, and resource use, for example.

Improvements in Professional Opportunities

As noted, there is a degree of alienation by our extension faculty from our professional organizations (most notably the American Agricultural Economics Association [AAEA]). While studies have been conducted and recommendations made to improve this situation (Phillips 1996), it is likely that the progress will be slow. However, the best hope for an improvement results from the hiring practices just described. If one-half of the next generation of faculty have extension appointments (75% extension FTEs, on average), then it is likely that they will do more to change the composition and character of the AAEA than any other strategy. They will have a natural interest in sharing their applied research and discussing their extension programing with colleagues at national meetings. In this way, AAEA will change from within rather than from a top-down strategy of providing more break-out sessions, preconferences, etc.

I also see improvements in the institutional setup of our profession, where there is better cohesion and teamwork among our faculty in their research, extension, and teaching endeavors. Considerable thought has gone into creating the correct reward structure and giving the appropriate signals to our faculty to accomplish these goals (see Huffman and Just 1994 and Barry 1993 for strategies). The National Research Council also speaks to this problem. One of their twenty recommendations to improve the land grant system specifically suggested combining the federal extension and research monies that universities receive. Forcing an institution to recognize this linkage between research and extension and then to allocate its funds accordingly will improve coordination. In their review of the National Research Council's report, Beattie and Innes (1997) also supported this combination.

The Two T's: Tenure and Training

The chairs were not surveyed regarding their tenure requirements for extension faculty. However, it is the responsibility of the chair to institute departmental guidelines that describe what constitutes excellence in extension programing. It is a maxim in the business world that promotion should be based on performance relative to an individual's job description; universities should be no different.

In our department at Maryland, we recently revised our tenure requirements for extension faculty (who are tenured in the university's academic departments). The highlights of those requirements are as follows. The specialist should have a major extension program area in which he/she has programmatic leadership. In that area, the specialist should have accomplished the following activities (educational inputs) that are associated with the extension output of changed behaviors and better decision-making: extension fact sheets, in-service training for county faculty and other professionals, invited presentations to state/local audiences, contributions to newsletters and popular press, and other similar activities. Associated with this program, the specialist should publish his/her applied research findings in *appropriate* peer-refereed outlets. Finally, he/she should provide professional services, often outside the specialist's discipline, as requested to further the college's extension mission (for example, serve on multidisciplinary teams, give occasional presentations). This last requirement is of less importance when compared with the specialist's primary program.

Even with correctly written departmental guidelines, the chair and the dean of the college still need to aggressively educate college-level and university-level committees concerning the value of an extension faculty's contributions. However, that process cannot begin until the department develops the appropriate tenure criteria.

Following suggestions received in my survey, I believe that each specialists' extension appointment should not exceed 75% and the remainder of the appointment should be in research. I recognize that limiting the specialist's official responsibility for resident instruction may be a difficult requirement. Many new faculty want to teach and often include that requirement when they are negotiating the details of their employment. Also, in many cases, the best undergraduate teachers are extension faculty and the chair needs their educational skills. But the problem remains that if an extension specialist's appointment is teaching/extension, then this appointment is essentially a three-way split because research is always required and three-way splits typically mean that a faculty member will fail (or be forced to ignore) one of his/her responsibilities.

In terms of training our graduate students in extension programing, one positive idea is assigning some of our assistantships to extension faculty. The specialist would be responsible for using the student's help, not only in his/her applied research,

but also in extension programing. In this way, the student would at least be exposed to the extension mission of the land grant university and its relationship to the rural community. However, funding for this type of assistantship is limited and likely to remain so.

In all situations, however, an extension mentor should be assigned to new extension faculty (many departments already do this). Typically, new extension faculty have never lived in the state in which they are now employed. They do not know the key players in the industry, county extension faculty, important issues, institutions, mandatory extension activities, and most important, how to create an extension program. Of course, the new extension specialist is responsible for the contents of his/her program, but the advice of a mentor can go a long way to reducing the down time associated with the first year and increasing the likelihood that the new specialist will achieve extension success.

Who Should We Serve? What Could/Should We Be Doing?

As mentioned above, there are questions as to what extension functions should be privatized, how far we should stray from our traditional audiences, and what services extension economists should provide—all within the framework of limited resources. As a general principle, extension economists should pursue excellence in programing, matching supply of existing skills with current demand, balancing the expectations of existing audiences with the needs of the greater community, and without competing with the private sector.

Our primary goal, as the Cooperative Extension Service within the land grant system, is to serve the greater good of society. In our profession, that goal relates primarily to agriculture and natural resources. Though our goal is to serve society, our clients are not the general population. Our client (or partner) in meeting this need is rural America. On behalf of society:

- we are partners with rural America in producing safe food, fiber, and ornamental agricultural products;
- we are partners with rural America in protecting our natural resource base;
- we are partners with rural America in protecting the environment;
- we are partners with rural America in improving the general welfare of rural communities and its pockets of dispossessed people.

This central focus on rural America can be criticized from both sides. Those who think it is too restrictive should consider the following issues. The Cooperative Extension Service is smaller today than in the past. While the number of full-time farmers is smaller, the problems faced by farmers are just as complex, if not more so. Farmers face increased competition from abroad and within our country because of reduced trade barriers and the elimination of farm legislation affecting price and output. Environmental and resource concerns further complicate their business operations. Also, our extension field faculty, the people through whom campus specialists typically work, are located in counties or in regional centers with geographic, not population balance. If we were to shift from a rural approach to a more urban approach, then these field faculty would need to be moved to population centers, which is unlikely to happen.

Those who think that focusing on rural America is too expansive, that we have strayed from our traditional base (full-time farmers), should consider the following issues. Increasingly, private consultants meet the needs of our larger farmers. Though we can and should work with these larger farmers, we have to focus our efforts so that we are not competing with the private sector but we are offering only those services that improve the public good. By carefully choosing our services to the larger farmers, we can free up resources to serve the needs of smaller, often part-time, sometimes alternative, and perhaps economically disadvantaged farmers (an audience that might be more similar to the population that the 1914 Smith-Lever Act empowered extension to serve). These two groups (large and small farmers) must understand their mutual needs and why CES must work with both. Small farmers have to understand that, without the larger farms, the agricultural service industry will likely desert their local communities. Larger farmers have to understand that, without the smaller operations, the high schools will close and shopping for home necessities will require day trips.

Also, it is not just the farming audiences, but rural communities, too, that need to be served. Both large and small farmers need health services, small businesses, and economically strong and environmentally safe rural communities in which to raise their families and enjoy social amenities. Rural communities need direct extension input, not just the secondary support derived from a profitable agricultural industry. There are opportunities for extension service in the nontraditional agricultural areas of natural resources and the environment, and rural and community economic development.

I emphasize that the previous discussion has

looked at the "central focus" of extension. CES is not a federal agency with line authority over its employees. Our employees are faculty members at universities with strong support for creative, self-generated programing. Though compromise and communication within the system are always necessary, we should generally allow our faculty freedom in their choices of extension programing, limited only by their ability to generate excellence. Also, most land grant systems maintain an extension presence, though usually small, within their larger urban cities, and many extension economists are involved in land use issues, primarily in suburban counties. These considerations notwithstanding, we live in a world of limited resources and CES needs to focus its efforts. Our comparative advantage has been and will continue to be serving rural America. In this way, we increase our opportunities for success in serving the public good and our ability to market this success, both of which translate into the sustainable presence of the Cooperative Extension Service within the land grant system.

Table 2 illustrates schematically the types of services that CES should provide and those that private services should offer (including extension services for pay). Also, the categories listed under each subject/specialty are generic; CES or extension economists should determine which categories best fit their states. The decision as to who should provide the service will also vary by state. The two principal criteria by which decisions should be made are (1) the existing skill-level of faculty and (2) the type of service that increases the greater good.

Too often extension administrators are unwilling to admit to the public that, because of downsizing, we no longer have faculty that serve a particular audience. However, not to do so is a mistake. Nothing is worse for extension's reputation than a faculty person who is operating outside of his/her field of expertise, providing either elementary or inaccurate information, or alternatively, a skilled extension specialist who is spread so thin across the state that he/she is extremely late in responding to the needs of clientele and therefore appears un-

Table 2. Services Provided by Extension Economists and Private Sources[1]

Subject/Specialty	Audience: Large Farms[2]	Audience: Small Farms[2]
Management (farm and agricultural business)		
Record keeping and finance	Private	Extension
Production systems/enterprise analysis	Extension	Extension
Business planning	Extension	Extension
Business organization & legal	Private	Extension
Information systems (including computers)	Private	Extension
Taxes	Private	Private
Marketing (farm and agricultural business)		
Pricing alternatives	Extension	Extension
Pricing advice/outlook	Private	Private
New products/value-added	Private	Extension
Policy	Extension	Extension
Market alternatives	Extension	Extension
Risk management	Extension	Extension

Subject/Specialty	Communities, Local and State Officials
Community/rural economic development	
Public issues education	Extension
Economic development projects	Extension
Rural social issues	Extension
Policy analysis	Extension
Natural resources/environment	
Public issues education	Extension
Natural resource utilization	Extension
Environmental issues	Extension
Policy analysis	Extension

[1]Private sources include consulting companies and extension services for pay.
[2]The term *farm* is used to include field crops, equine, livestock, poultry, dairy, vegetables, fruit, ornamental horticulture, alternative agriculture, and landscaping. In a generic sense, large farms are those operations that gross 80% of total sales (20% of total number), and small farms are those that gross 20% of total sales (80% of total number). While this criterion is simplistic, it still provides a useful format from which extension can identify the appropriate services it will offer.

responsive. In these situations, either we need to state clearly to our clients that they should seek the private sector for help or we need to devise cooperative agreements with our neighboring states so that the underserved audience receives at least some level of extension programing through that mechanism.

To determine what type of service, extension or private, better serves the public good is much more difficult or subjective. We should not be using public tax dollars to compete directly with a private company that provides quality service. However, that does not mean we do not work, in a limited fashion, with our clientele in these areas. We may help them evaluate the value of private services or educate them in utilizing the information that the private companies provide. Or extension may set up a cooperative that is taken over by private services once it is well established. In other situations, large farms, through their ability to invest in appropriate technology, can become important demonstration sites for our educational programs. Finally, we may choose to work in areas that are served by private interests to establish our own credibility as extension specialists. For example, I note in table 2 that the commodity advice/outlook function should be privatized. That does not mean a marketing specialist would not give outlook talks, as invited, or provide a marketing outlook paper for the upcoming harvest or storage seasons. However, he/she should not be offering weekly buy/sell signals to individual farmers; there are private firms that farmers should utilize for that service. Similarly, extension should provide the appropriate services in the areas of natural resource/environment and community/rural economic development. Currently, privatization is not an issue in these areas. While extension may be cooperating with other agencies in these services and participating as a member of a larger team, they should at least be "at the table" for these programs.

Whatever decisions we make regarding which services we provide, the bottom line is that we should be the best at what we do. In this way, we are no different from businesses in the private sector. Our business is serving rural America, primarily through educational programs in specifically identified areas. If we do not do this well, then we will fail, and our bankruptcy will occur when the public finally chooses not to support our efforts.

Opportunities for Individual Faculty

There is much to be done in improving the efficiency, focus, and support for the Cooperative Extension Service within the land grant system. However, there is also much that individual faculty can and should do. We should not be overwhelmed by any perceived dysfunction of our institution (department, college, or university) or discouraged by challenges facing extension so that our productivity slips and we become cynical.

We have jobs with an enormous amount of flexibility. Not only do most of us set our own hours, but we can choose the areas in which to work. Each of us, individually working toward excellence in extension, adds to the aggregate supply of service to our clientele. Individuals create the necessary momentum in which their colleagues in their department and college can join (see Skees 1992, for similar comments concerning research faculty). There is nothing that can stop us from pursuing excellence in our extension programing (modest travel budgets notwithstanding). The issues facing rural America are complex and many, but the rewards from involving ourselves in their resolution are significant. Speaking from personal experience and from numerous conversations with fellow extension specialists, when a program goes well (and sometimes they do not), there is no greater professional satisfaction. Extension service bonds us to individuals and communities in a way that no other role in our land grant university can replicate.

A renewed commitment by our individual faculty members to their extension responsibilities is also the right thing to do, both for the system and for individuals. In each state, extension administration allocates relatively large sums to the departments in the colleges of agriculture. We need faculty members and their chairs to honor the terms of their employment; the specialist needs to deliver that level of programing that is consistent with his/her extension FTE. Funds are too tight for misuse at the departmental level. If departments cannot deliver on the funds they receive, there are field faculty who want to and can. The best mix by far, in serving the public good, is still field faculty and campus faculty working together, the former providing general skills, contacts, and knowledge of local conditions, and the latter, in-depth knowledge of required specialties; but both parties need to honor their share of the bargain for this combination to work.

Individuals also can benefit by better identifying their own personal gifts. None of us wants to be mediocre in our professional career. The type of person who would invest in (endure) postgraduate training is not the type to settle for second best. Yet too many of us spend our time worrying too much about our research output. All of us have different talents or mixes of talents. Very few of us are good

at all three missions of the land grant university: extension, teaching, and research. Yet many of us spend our entire professional careers trying to be people we are not (i.e., good researchers) when in fact we have other skills such as

- teaching in nonformal settings,
- establishing positive relationships with people in the rural community from which programs are developed and lives are changed,
- organizing economic community development projects that increase income to marginalized peoples, and
- concisely communicating to policymakers important societal consequences of proposed legislation.

These skills and others are attributes that many of our productive researchers do not have. Academic scholarship is important to all of us, but we do not need to let it dominate our lives (at least as it is expressed in published articles). Granted, we have a reward structure that favors research, but there are many agricultural economists, only a few of whom dominate the pages of our top journals (and rightly so). Long-term professional recognition and satisfaction stem from each of us doing what we do best.

Finally, there are important issues and problems facing society. Extension faculty have a chance to be directly involved and, in most cases, extension economists are asked to play leadership roles. People worry about the following issues (to name a few): the safety of their food, the loss of the "family farm," industrialization of agriculture, out-migration from rural economies and the resulting depletion in social services, polluted and overused water bodies, zoning practices and land preservation or the lack thereof, and the sustainability of our agricultural system to meet the food and fiber needs of our peoples and those around the world. More generally, we have a role in "mitigating externalities, in empowering the disenfranchised, in picking up the slack in a market system" (Hite 1992, p. 1259). These issues and others are of paramount importance to society and, as a result, to the land grant universities. These, truly, are opportunities for extension economists.

Conclusion

There are real opportunities for agricultural and natural resource economists to serve rural America with excellence in extension programing. In some situations and states, the challenges may appear large to an individual faculty member, but the personal satisfaction associated with extension service is significant. If enough of us pursue our extension programing in concert, we will reclaim our full partnership, gain recognition, and receive appropriate financial rewards in our profession and the land grant system.

References

Barry, Peter J. 1993. "Coordinating Research, Extension, and Outreach in Agricultural Economics." *American Journal of Agricultural Economics* 75:1091–1101.

Beattie, Bruce R., and Robert Innes. 1997. "Federal Funding of Agricultural Research, Education, and Extension in the Land Grant Universities: An Economic Perspective." *Choices,* 2d quarter:8–12.

Bonnen, James. 1992. "Changing Roles of Agricultural Economists and their Institutions." *American Journal of Agricultural Economics* 74:1259–61.

Dillman, Don A., James A. Christenson, Priscilla Salant, and Paul D. Warner. 1995. "What the Public Wants from Higher Education: Workforce Implications from a 1995 National Survey." Technical Report #95-52. Pullman, Wash.: Social & Economic Sciences Research Center, Washington State University. November.

Hite, James. 1992. "Implications for Land Grant Universities of the Changing Political Economy of Agricultural and Rural America: Discussion." *American Journal of Agricultural Economics* 74:1256–58.

Huffman Wallace E., and Richard E. Just. 1994. "Funding, Structure, and Management of Public Agricultural Research in the United States." *American Journal of Agricultural Economics* 76:744–59.

Kohl, David M., Leonard A. Shabman, and Herbert H. Stoevener. 1987. "Agricultural Transition: Its Implications for Agricultural Economics Extension in the Southeast." *Southern Journal of Agricultural Economics* 19:35–43.

McDowell, George R. 1992. "The New Political Economy of Extension Education for Agriculture and Rural America." *American Journal of Agricultural Economics* 74:1249–55.

Marchant, Mary A., and Lydia Zepeda. 1995. "The Agricultural Economics Profession at the Crossroads: Survey Results of Faculty Salary, Employment, and Hiring Prospects." *American Journal of Agricultural Economics* 77: 1322–28.

National Research Council. 1996. *Colleges of Agriculture at the Land Grant Universities: Public Service and Public Policy.* Committee on the Future of Land Grant Colleges of Agriculture. Washington, D.C.: National Academy Press.

Phillips, Michael J. 1996. " Visions for Agricultural Economics: Better Serving Applied Economists." A report to the American Agricultural Economics Association, the Council on Food, Agricultural and Resource Economics, the National Association of Agricultural Economics Administrators, the Farm Foundation. Chicago, Ill.: W.K. Kellogg Foundation Project, the Farm Foundation. October 25.

Skees, Jerry R. 1992. "The New Political Economy of Agricultural and Rural Research: Implications for Institutional Change." *American Journal of Agricultural Economics* 74:1241–48.

Wallace, Tim. 1988. "The Land Grant Concept and Extension Leadership." *American Journal of Agricultural Economics* 70:1133–36.