



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

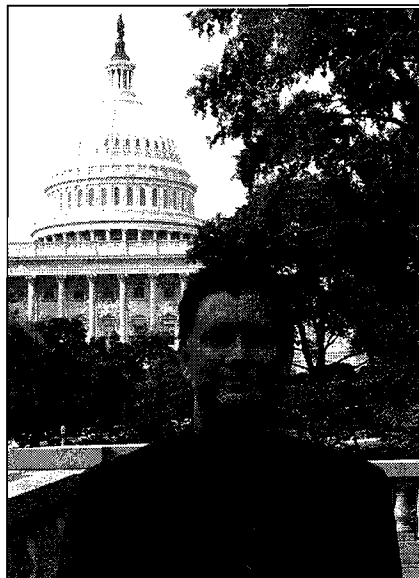
Dana L. Hoag

WAEA President, 2005–2006

Dana Hoag is a professor in the Department of Agricultural and Resource Economics at Colorado State University. Prior to coming to Colorado in 1993, he served as an assistant professor and associate professor at North Carolina State University. Dr. Hoag also spent one year at the U.S. Environmental Protection Agency in Washington, DC, providing assistance with the 1990 Farm Bill. He received his B.S. and M.S. degrees from Colorado State University, and his Ph.D. from Washington State University in 1984.

Dr. Hoag has authored over 200 publications, including two books. He teaches graduate and undergraduate courses in policy and production economics and makes numerous presentations to Extension audiences. He is also very active in extracurricular activities with students, and has served as academic advisor to various clubs and student organizations. Dana Hoag has received teaching awards from the Western Association of Agricultural Economists, the National Association of Colleges and Teachers of Agriculture, the College of Agriculture at Colorado State University, and the Board of Governors for Colorado State University. He has received Extension awards from Colorado State University Cooperative Extension, Epsilon Sigma Phi Cooperative Extension Professionals, and the Colorado Farm Bureau. Dr. Hoag also was the recipient of an award for outstanding published research in the *Journal of Agricultural and Applied Economics*.

An active member of the Western Agricultural Economics Association, Dr. Hoag has



served on the Executive Council, as a WAEA director, as Vice President, and on several committees. He was co-founder and co-editor of the *Western Economic Forum*.

Currently, Dr. Hoag is working on a joint Extension and research effort called *RightRisk*. The program has allowed him to cooperate with colleagues from several western states and to expand his knowledge of risk management. He is also embarking on a large project with the University of Wyoming to study conservation values on private lands and the conservation easement market.

When he's not working, Dr. Hoag loves to take advantage of the outdoor amenities of the Colorado West, like hiking, skiing, and camping—or to just enjoy a good movie.

Economic Principles for Saving the Cooperative Extension Service

Dana L. Hoag

The Cooperative Extension Service is an outstanding success story for education, but a model whose value is now in question. I focus on economic principles that apply to the question, “Is it time to end Extension, and if not, how can it be saved?” Six principles are identified: public goods, competitive advantage, privatization, long-run sustainability, business practices, and political economy. There is cause to support Extension, but leadership is needed to establish a common direction and to implement changes. Strategic planning would be helpful to identify these changes and to make Extension’s value known to clientele and policy makers.

Key words: abolish Extension, Cooperative Extension Service, economic value, save Extension

Introduction

Education is one of the most important and most desirable policy instruments a society has to offer. Its value is evident in the United States where educational policies have produced remarkable growth and success. One of the most successful and recognized educational programs is the Cooperative Extension Service (CES, or Extension), which helped American agriculture grow and improve in unprecedented ways. In the latter half of the 20th century, agricultural productivity grew annually by nearly 2%, doubling output per unit of input. Environmental impacts from agriculture, such as soil erosion and water contamination, were reduced significantly. And the quality of life as it relates to food production and distribution was improved for virtually every American.

Despite its celebrated past, some people are asking if Extension is “on the brink of extinction” (e.g., Bull et al., 2004; Boehlje and King, 1998; McDowell, 2004). As public support and budgets wane, Extension personnel at all government levels struggle to sustain the system. Efforts to sustain the CES are often driven by budget, which masks greater forces that will lead to the virtual demise of Cooperative Extension if it does not change in substantial ways. Budget cuts are just the underlying symptom of perhaps even more powerful dynamics threatening the very structure of information supply and

Dana L. Hoag is professor, Department of Agricultural and Resource Economics, Colorado State University, Fort Collins. This article is a revised version of the Presidential Address presented at the Western Agricultural Economics Association annual meetings held in San Francisco, California, in July 2005. Special thanks are owed to DeeVon Bailey, Judy Harrison, and the anonymous *Journal* reviewers for their assistance and guidance throughout the editorial process. I am especially grateful to the many people whose counsel I sought in helping me put together my thoughts, including: Julian Alston, Steve Blank, Mike Boehlje, Robert Evenson, Bruce Godfrey, Verne House, Marc Johnson, Kirvin Knox, Mike Lacy, George McDowell, C. J. Mucklow, Desmond O'Rourke, Kraig Peel, Joel Plath, Milan Rewerts, Tom Schotzko, Lee Sommers, and others who asked not to be named.

Review coordinated by DeeVon Bailey.

demand. In today's information age, people are better educated and have many choices when seeking sources of information. This fundamentally alters the arena for the public goods Extension provides. Extension was originally designed to provide hard-to-find education and information to a relatively uneducated populous, most of whom did not have even a high school diploma. Today, CES addresses a well-educated clientele, many with college degrees, who can easily obtain information and education without the assistance of Extension.

It is apparent to many that CES in the United States must reinvent itself, and it seems fitting in this Presidential Address to discuss what economics has to offer on this topic. My objective is to point out our unique perspectives to people outside of the economics discipline and to call on economists to get more involved. This topic was chosen because it is an important policy issue, and specifically fits my disciplinary specialization and my background. My first academic appointment was as an Extension specialist, thus allowing me to speak from experience. Yet, because I do not currently hold a CES appointment, my job is not linked to the findings or conclusions in this paper.

I proceed with a short discussion about the future of CES, followed by the presentation of six economic principles that could help decide the fate of CES. I conclude with some final thoughts and responses to helpful comments I have received on earlier drafts of this address.

CES Is on the Brink of Extinction

It should be clear to anyone paying attention that CES is in serious trouble. Increasingly, people are questioning whether the need remains for a public CES. McDowell (2004), for example, relates that in 2003, Michigan State University issued an e-mail to its alumni to alert them about severe cuts, or worse, threatening Extension (and the Agricultural Experiment Station). In Minnesota, budget crises led to a total overhaul of Extension away from traditional county offices to a mixed regional/county model (Morse and O'Brien, 2004). Similar stories permeate the nation, including North Carolina, South Carolina, Oregon, and my home state of Colorado (McDowell, 2004).

While most people agree that the sustainability of Extension is threatened (King and Boehlje, 2000a,b; Evenson, 1997; Martin, 2002; SeEVERS et al., 1997), there is substantial disagreement about solutions. Some believe that Extension is a concept whose time has "come and gone." Others support the Extension Service, but think it has been captured by agricultural interests and needs to broaden its current base (McDowell, 2000, 2004); Extension, under this reasoning, should redefine its mission and seek new sources of funding. Still others believe that "mission creep" has pulled Extension away from its agricultural roots (Peters, 2004, as cited in Bull et al., 2004), which weakens support.

People are divided about how to move forward partly because it is so difficult to fully understand, let alone describe, exactly what the problem is. The six principles discussed below address how Extension can be made more or less relevant by the way it responds to its problems as I see them.

Six Economic Principles for Saving the Cooperative Extension Service

■ PRINCIPLE 1. *CES Provides Public Goods*

The first question to address is whether there should even be a public Extension Service. Economic theory is very clear about the necessary and sufficient conditions for government intervention, particularly concerning market and government failures. In the case of Extension, there is also a track record of almost 100 years that can be examined to determine how effective Extension has been in the past and to suggest whether it might be so in the future.

When Should Government Intervene?

The *necessary* condition for government intervention is the presence of market failure, such as an externality, imperfect competition, or a public good. The type of market failure most often associated with Extension is information and education as a public good. Extension also can reduce imperfect competition or negative externalities with information and education. There is little question about whether the CES can offset some market failures and thereby satisfy the necessary conditions for government intervention. However, there is considerable question about when and where it meets these conditions.

The private sector will provide some information but will generally undersupply it, and in some cases may have the incentive to provide misinformation. This leaves gaps or niches for Extension, but not an excuse to become a monopoly provider. Publicly provided Extension is more likely than a private system to address externalities such as those associated with the use of natural resources, make information availability more equitable, address risk, take advantage of pooling resources for large problems, or have regard for nonmarket concerns such as community health and social issues such as environmental justice. It is in these areas where Extension leaders should focus their attention.

Market failures do not necessarily justify government intervention. The *sufficient* condition is that the market failure being corrected is not outweighed by the negative aspects of government intervention—i.e., government failure should not outweigh market failure. Government failures are the counterpart to market failures in the sense that all costs and benefits are not included in the consideration of a government action. There are a host of known government failures to consider, including: *competency, fairness, unintended side effects, cost-effectiveness, implementation problems, bureaucracy, and employee sovereignty*. By recognizing these failures, economists can help avoid or reduce them. For illustration, I discuss one example below.

The government is not always the most *competent* or *cost-effective* provider of goods and services. For instance, Celera Genomics, a private firm, successfully produced a complete map of the human genome in a fraction of the time and cost it took for a public effort by the National Human Genome Research Institute. This case illustrates the difficulty in comparing market failures to government failures. A government failure of increased costs will occur if a public entity produces the information, but there may be larger gains in offset market failures. For example, a number of public goods would likely flow from this information if it is in the public domain.

Historical Experience

One of the strongest arguments for continuation of the CES is its past success. Total agricultural productivity increased an average of 1.94% per year in the last half of the 20th century (Ahearn et al., 1998). Output increased by 150% over this 50-year period without increasing total inputs. According to Shane, Roe, and Gopinath (1998), public research is responsible for perhaps half of this remarkable growth. The remainder is attributed to improved infrastructure, private research, and productivity growth in intermediate inputs. The returns to investments in public research and Extension appear to be very high. The core range for annual research returns is usually cited at about 40–60% (Fuglie et al., 1996). Private returns are generally lower because they have a higher ratio of applied-to-basic research than the public sector; basic research has a higher rate of return than applied research. Extension has a slightly lower core range of 23–35%.

Alston et al. (2000) estimated a meta-model of the returns to research and Extension based on 292 studies with 1,886 observations. The authors caution readers that results are highly variable because of data issues and differing conditions across studies. Their analysis found a scarce 18 studies that looked at Extension only, but 512 that examined the combined effects of Extension and research. Their model does not produce an average rate of return. However, without accounting for any study particulars—such as the impacts influenced by the specific professional field of specialty and focus of the researcher who performed the study, whether the study was carried out in a developed or less-developed country, and other pertinent factors—annual rates of returns to research are found to be about 87%; annual rates for Extension are 57.7% lower, and annual returns to Extension and research combined are 33.3% lower. Extension returns are confirmed to be favorable at around 30% (i.e., $87 - 57.7$), plus or minus accounting for study particulars.

While returns to Extension are typically favorable, my own (unpublished) research with Steve Davies and Eihab Fathelrahman showed that Extension efforts can appear to produce negative returns, even when producers become more efficient. For example, when beef prices were low in the 1980s, increasing productivity would have reduced the price of beef, because demand was inelastic, yielding a negative rate of return. However, when we estimated this impact in a computable general equilibrium model which included many economic sectors, we found that reduced beef prices released resources to other sectors where benefits may have been overlooked with a traditional impact study. The important point here is that economic sectors are linked, so Extension may be having desirable or undesirable effects which are not even being considered. In our study of beef research, for example, findings revealed that, under some conditions, driving up beef productivity in Colorado had the effect of helping other states that provide inputs, while actually hurting Colorado beef producers. Clearly, more exploration needs to be undertaken concerning these linkages, with emphasis on an examination of tradeoffs on many levels, before economists can confidently explain returns to Extension.

■ **PRINCIPLE 2. *Focus on Competitive Advantages***

As discussed in the previous section, it is probably not time to end the Cooperative Extension Service, since there are still niches where public information providers are needed. However, private information providers are increasingly competing with the

CES, forcing administrators to do a better job of identifying their niche. How will the CES compete in the future?

One way to address this question is to identify the competitive advantages of the CES. What can it do relatively better than the private sector, which is related to the concept of public goods? When the Smith-Lever Act was passed in 1914, about half of the U.S. population lived in rural areas, and 30% were involved in farming. Since then, the population has become more educated, and the cost to obtain information has fallen dramatically. Extension has long held two major competitive advantages: (a) the ability to deliver information and education, and (b) a reputation for delivering high-quality, research-based, unbiased information and education. The first advantage came from the large network of county agents who used specialists to address questions their clientele could not answer on their own. This advantage, I believe, has diminished sufficiently to be irrelevant—i.e., in many cases, we have no competitive advantage over other information providers. Farmers and other clientele have access to information and the educational foundation to understand and assimilate it. They also have access to education from many different sources such as commercial agriculture, community colleges, and online vendors.

Should Extension continue to compete as an information and educational distributor? Yes, but with the understanding that delivery itself is increasingly less a public good. Maintaining the ability to deliver information and education is important because it sustains the critical mass of research necessary to create knowledge and because it is complementary to providing unbiased, research-based information and education (i.e., providing an outlet for research results). Providing and delivering information and education requires an infrastructure of applied researchers (including Extension agents and specialists), educators, assistants, physical capital, and a network of cooperators.

The second competitive advantage—a reputation for delivering high-quality, research-based, unbiased information and education—I believe, is stronger than ever. With a “glut” of information available, people need to know which sources are credible and which ones are not. When and where will leaving the private sector to provide information lead to costly biases? It is here that I suggest CES needs to pay relatively more attention. As noted by Evenson (1997), many of the benefits from Extension are indirect. Information from industry often comes indirectly from the CES. Traditionally, Extension captures little of its contributed indirect value, but with some effort CES can capture this value. For example, the CES could develop a certified label of quality assurance that would add value to indirect users. Information from the Home Depot about which grass seed to use on a lawn in Denver, Colorado, for instance, would not be trusted unless it was Extension certified. Extension would not necessarily charge for the label, but could earn returns from increased political capital (discussed in Principle 6). Of course, the more direct route to capture indirect earnings would be to charge for Extension knowledge and education (discussed in Principle 3).

Extension also will have a default competitive advantage in providing public goods that the private sector won’t provide. There was a time when Extension educated leaders based on the notion that the knowledge trickled down to others in the community. But leaders today are very capable of obtaining their own information, leaving Extension in many cases to the task of educating the less capable. For example, in many states Extension is looking at education programs for small, hobby producers who lack the scale or size to seek information on their own. This is a very big change—one CES has not yet fully explored.

■ PRINCIPLE 3. *Privatize When Appropriate*

Although many don't like to consider it, one solution is to privatize part or all of CES activities. It should be obvious from the previous section that CES cannot and should not be the sole information provider. The initial reaction of many within Extension will be to fight to keep things as they are, because change may lead to a diminished role for CES—and consequently may lead to the loss of CES jobs. However, a society's objective is not necessarily to fund the Cooperative Extension Service. The objective should be to let the market work where it will, and then to fund public good activities.

There are many ways to privatize Extension efforts that would not involve folding up the tent and calling it quits. The Extension Committee on Organization and Policy (ECOP, 2002), Evenson (1997), and Rivera and Cary (1997) discuss several ways to generate revenues for Extension through mixed public and private arrangements. These include grants and contracts, vouchers attached to government services or bank loans, cost-recovery charges for services, contract services, membership subscriptions (coupons), fees for service, gifts and endowments, outsourcing, and commodity checkoff programs (targeted taxes).

Many of these methods have already been implemented in other countries. Vouchers are used in Chile, for example. The Dutch government uses membership subscriptions like coupons. In New Zealand, which has totally privatized, growers contract with university specialists for services. Outsourcing is another possibility. The Natural Resources Conservation Service in the United States uses certified Technical Service Providers to outsource routine activities. Another option is for the Extension Service to charge for the *delivery* of information, as opposed to *access* to information. The Federal Technology Transfer Act of 1986 authorizes cooperative research agreements (called CRADAs) between federal entities and private companies. Software developed by a federal agency, for example, might be marketed by a private firm. There is no reason Extension could not benefit from the same types of associations.

ECOP's (2002) vision for the 21st century is to develop a university-wide funding strategy, to build revenue streams through contracts, grants, and endowments, and to charge fees where appropriate. Many states in the U.S. are charging, or considering charging fees for services, including Iowa, Kansas, Pennsylvania, Ohio, Montana, Oregon, Tennessee, Illinois, and my own state of Colorado. Based on an examination of this issue at the University of California (UC-ANR, 2003), charging fees is acceptable but raises concerns about access and competition. Charging fees was found to offer relatively little advantage compared to other revenue sources such as grants or checkoff programs. The USDA restricts where fees can be charged, thus limiting the potential to generate net revenues (refer online to <http://PODC.unl.edu/docshome.htm>). Fees cannot be charged for core Extension programs or for funded staff, and cannot substitute for government-appropriated funds. However, fees can be used to recover costs incurred to offer a program, such as travel or materials, and for non-academic support.

While some programs can, and perhaps should, be privatized, Extension also must guard against the undesirable aspects of privatization. Private information inherently changes who gets access and how programs are delivered, and deemphasizes public goods. The importance of these problems will vary by region and topic. A case in point is reported by Evenson (1997) for Dutch farmers, where cooperation between Extension and private organizations fell and information was shared less freely when information

was partially privatized. Among the impacts of privatization cited in New Zealand were reduced government influence, a reduced quality of information, fragmentation of information sources, and possibly a reduced effectiveness of the CES where a critical mass of support could not be maintained. On the positive side, more client focus and better business management practices have emerged (Evenson, 1997).

■ **PRINCIPLE 4. *Manage for the Long Run***

One of my personal observations about efforts to address concerns within the CES bears note: *People usually start from the assumption that the solution will utilize the existing Extension structure.* This assumption fails to recognize the fact that capital depreciates! Like a building that keeps getting renovated, at some point the best thing to do is tear it down and rebuild it from the ground up. King and Boehlje (2000b) label this behavior “incrementalism.” Options at the margin that do not include revamping the structure of the underlying capital are limited. Imagine, what would the CES look like if it started over? CES has sunk costs in the current structure which are difficult to change. Sometimes this is an asset; sometimes it’s a liability.

Consider the traditional roles of agents and specialists. How difficult would it be to alter this relationship? Changes are occurring already where constraints are low and/or budgets are tight. Agents, for example, are more involved in applied research and writing grants, while specialists are interfacing directly with county clientele. While changes are occurring at the local levels, and sometimes at the state level, they are more difficult to implement when they are systemic.

Becoming less myopic about Extension investments will be very difficult because the infrastructure is so deeply ingrained. Nevertheless, CES could do a better job of developing and testing alternative models of information delivery, however painful that might be. One example on the horizon is e-Extension, a web-based information and education network providing 24/7/365 access to objective, science-based information, developed and maintained by the CES. Its supporters assert it will provide better service to a larger customer base, assist county Extension agents/educators in helping clientele, provide national content with local connections, and be a model investment for “Blockbuster Returns” (refer online to <http://e-Extensionproject.info>). Whether it is successful or not, e-Extension represents an innovative effort to adapt to the future.

■ **PRINCIPLE 5. *Follow Good Business Practices***

One of the most important lessons highlighted in the previous sections is that the impact of CES will depend heavily on the way it is organized and implemented. Economics is rich with applied theories about business management principles that could improve the chances of CES survival. And the Extension Service and related research services are certainly experienced in related applied research. Specifically, economics can help with business efficiency. Extension is not a business per se, but many of the principles apply nonetheless. Important economic concepts include diminishing returns, opportunity costs, complements and substitutes for inputs into Extension, complements and competitive products that compete with Extension, demand and supply for information, economies of scale, and principal-agent theory. For example, e-Extension—or sharing of expertise/specialists between states or regions—is an input

substitute for labor at the local level. Research is a complement that makes Extension more effective. Community colleges and the internet are output substitutes that compete with Extension. Economists could help CES determine the role of input and output substitutes and assist in finding the optimal complement of researchers.

Laband and Lentz (2004), for example, looked at how Extension affected the cost of education at universities. They found Extension increased the annual fixed costs of providing education at universities with Extension responsibilities by \$26 million, equivalent to over a half billion dollar investment. However, spending on Extension had the complementary effect of reducing the cost of providing education at the university by 35% for a school with average Extension expenditures. Schools with the largest expenditures had the reverse effect, and imposed a cost of \$3 for every \$1 spent at the margin on Extension.

In the discussion that follows, I examine how economic business principles apply to four major issues: clientele, staff incentives, branding, and strategic planning.

Clientele: Who Will Extension Serve?

There are, of course, many management decisions CES must face, but one of the most important questions is who it will serve and what expertise is required to meet the needs of clientele. One group of people wishes to expand the scope of Extension clientele, while the other prefers to retain the current focus. This dichotomy prompts two questions. The first is whether Extension should expand beyond traditional agricultural borders (which I delay discussing until Principle 6). The second question is whether to serve "richness" or "reach" (Boehlje and King, 1998). "Reach" refers to how many individuals are touched by the information, and "richness" refers to the level of detail and depth each person receives.

Conceptually, and historically, the CES has provided both richness and reach. But as budgets tighten and clientele gain access to other information sources, the richness of CES information has been diminished, and many Extension professionals have looked toward reach to solve their budgetary problems (e.g., e-Extension). However, this strategy tends to place Extension's proverbial eggs in a basket where their competitive advantage is weakest. Moving too much Extension away from "putting knowledge to work" and toward wholesaling information risks the loss of long-term buyer loyalty and makes Extension vulnerable to being out-competed by the private sector.

As noted earlier, e-Extension is an example of a program designed to both expand user audiences and lower costs. As such, it should be pursued with passion. However, the concept appears to be driven partly by the assumption that personal delivery of information, sometimes called "face-to-face" (F2F), is too costly to be sustainable. This may be the case in the short run, but at what cost does "going electronic" come? F2F contact may be a price worth paying because it maintains the CES support base. In my experience, personal contact is Extension's greatest public relations tool. Furthermore, some studies show that Extension clientele prefer traditional delivery methods. One study found about half of those surveyed preferred the internet, while half preferred traditional methods (ECOP, 2004). In a survey of landowners, farmers rated the internet information much lower than traditional Extension. About three-quarters preferred traditional Extension compared to less than 20% who preferred the internet (Howell and Habron, 2004).

Staffing: The Principal-Agent Dilemma

Extension must consider the best way to organize. A top-down management style would crush the innovation needed by Extension to be flexible enough to address diverse issues, and would work at cross-purposes with the cooperation among local, state, and federal funding sources. At the same time, however, the relatively weak control of the current system is a barrier to needed changes. This creates a complicated principal-agent problem. The principals (administrators and taxpayers) do not necessarily respond to the same incentives as the agents (county agents and specialists). Huffman and Just (2000) discuss the problem relative to agricultural research, which is similar in many ways to Extension. Neither a top-down nor a bottom-up approach is best because administrators perceive at least four things differently from researchers: (a) they see different risks and have different tolerances to risk, (b) they see different costs, (c) they realize different rewards, and (d) they experience different moral hazards. According to the findings of one study of Extension, administrators think that specialists support agents, department heads see specialists primarily as faculty members (research, faculty mentoring, etc.), and specialists fall in between these two expectations (Ward, Bailey, and Godfrey, 2002). Huffman and Just (2000) showed that a program could be improved when these differences are accounted for.

The important point of emphasis here is that getting incentives right is very difficult, but economists can be of assistance. In a recent co-authored paper (Weiler, Hoag, and Fan, 2005), I likened the relationship of supervisors and researchers to prospecting for gold. Like prospectors, researchers search for nuggets of knowledge through inquiries that feature complex knowledge and uncertain returns. And like prospecting for gold, the best place to “dig” for results is uncertain. Unlike gold, however, the payoff of research nuggets differs between agents and principals. The *gold* envisioned by agents/researchers, in terms of increased publications and reputation, may not mesh well with the *gold* often of interest to the principals/public, namely greater efficiency in economic activity or social value. The latter of these is not likely to yield considerable tangible returns to research. Likewise, information of value to investors and consumers may not be publishable or otherwise directly helpful to a researcher’s career, yet may feature significant market returns while leading to greater overall market efficiency through improved information on particular markets. This divergence in incentives threatens the will of principals to grubstake prospectors.

One principal-agent problem important to this audience is incentives for Extension specialists. In theory, specialists pass on research to agents. However, the incentive structure to do so is very weak. Consider whether a specialist has more incentive to have three journal articles produced from a project or 50 happy producers. Professionally, the specialist is much better off with the journal articles. As evidence, consider that Golden et al. (2005) found faculty in departments of agricultural economics were paid nearly \$10,000 less per year when they had an Extension appointment. Michael Martin (2002) wrote an interesting piece about this problem when he moved from being a department head in Agricultural and Resource Economics at the University of Florida to the post of Vice President for Agriculture and Natural Resources. He states he now realizes that department heads need to focus more attention on the Extension mission and heighten the stature of those involved. Martin specifically suggests working with the American Agricultural Economics Association to raise the profile of Extension faculty, and

advocates that all faculty be involved in outreach and that students be trained in Extension education. Others have suggested we also reward team efforts and connect the value of client gains to the specialists—the point is that there is an imperfect connection between the incentives and the goals for Extension specialists.

Marketing the Extension Brand

Extension should also consider the prospect of advertising itself more effectively. Because the greatest portion of funding for the CES comes from general taxpayer funds, CES relies on the public for sufficient positive feedback and acknowledgment to pressure policy makers into supporting it. Yet, the CES spends very little on credit-claiming and advertising. As a business principle, the CES may want to consider developing a stronger, more recognizable brand label. And, as detailed by Principle 2 above, it might want to focus on its competitive advantage as a quality source of unbiased, research-based information and education.

Strategic Planning

As previously noted, the importance of strategic planning (SP) can be significant. Unfortunately, many in Extension suffer from SP-fatigue. Too many of us have been part of overly cumbersome processes that have shown few or no results. Nevertheless, through strategic planning, it is possible for Extension to achieve the following goals: (a) identify where Extension's competitive advantages are, (b) determine the appropriate roles for Extension staff, (c) prioritize projects and plan for funding, and (d) increase budgets through stronger emphasis on credit-claiming and advertising. Toward this end, fundamental discussions are needed to prioritize how to effectively use shrinking resources in combination with strong leadership to make necessary changes.

■ **PRINCIPLE 6. *Beware Your Political Economy***

Because the CES is so dependent on public support for funding, the final economic principle I discuss is political economy. One of the tenets of political economy is that politicians engage in credit-claiming and advertising. They do this because their prosperity, in essence, depends on votes—which in turn depend on whether their constituents think they are effective. Extension needs to build political capital because it relies on that capital for its survival. For example, in 2003, the Extension office in Marion County, Illinois, received a call announcing the introduction of a proposal to rescind 25% of the 2004 funding, effective immediately, and to completely eliminate funding for Cooperative Extension in the 2005 budget. A show of public support resulted in full restoration of the 2004 funding and 75% of the 2005 budget (Jischke, 2004). Martin (2002) recalls a similar story in Florida where political capital garnered money from the state legislature for a trade center. Extension cannot focus just on being valuable, it also *needs to make sure people know how valuable it is*.

One area where political economy is particularly important is the choice of clientele. It is natural to want to expand the scope of Extension, as Extension is a concept with applicability in many realms beyond agriculture. McDowell (2000), for example, envisions

“a couple of history professors with 50 percent Extension appointments working directly ... with historical societies.” McDowell (2000, 2004) criticizes Extension for being captured by agricultural interests. However, expanding outside of these narrow interests comes at significant risk, regardless of the value to society. As Nobel Prize-winning economist George Stigler demonstrated, it’s not the number of people who are for or against you that matters; it’s the number of people who will take action on their views that matters.

If CES is indeed captured by agricultural interests, the benefits per person are relatively large. In terms of political capital, this means Extension has a buyer who is willing to purchase Extension activities by providing political support. An agency that relies on its budget from legislation deals in the currency of public support, or political capital. In Colorado, for example, there are only 15 full-time equivalents allocated for working on livestock, but 140 allocated to 4-H. Why does 4-H receive so much individualized attention? Because 4-H enjoys a lot of political support. Regardless of how valuable 4-H is, any threat of cuts is assured to generate intense pressure on policy makers. For instance, a recent attempt to remove formula funding for Agricultural Experiment Stations was rebuffed by Congress for fear of the “Green Wave” of 4-H parents who would criticize them.

Support could be lost if CES transitions away from agricultural and rural interests, particularly if new clientele do not translate into new votes of support and old clientele simultaneously withdraw support. Conceptually, Extension could reach 50 new clientele without any gain in support because the value offered to each new person is too low for them to expend time or effort supporting Extension. In other words, these individuals may like what they are getting, but not enough to actively champion the CES. This stretches an already thin budget and risks it becoming even thinner.

Concluding Remarks

I solicited people to write to me after presentation of my WAEA presidential address, and many did. Some thought I had overemphasized Extension’s role in providing information relative to education. That was not my intent, and I have attempted to assure this problem does not persist in the current revision. I received some reminders that Extension offerings vary substantially across the country, and thus it is difficult to unequivocally state anything that does not have an exception. Funding shares among the federal, state, and county offices vary considerably, for example, which significantly affects the political economy and ability to offer nontraditional programs. Counties that pay most of the bill have many more options. The goals of Extension are also affected, which now may vary more significantly by states as they become more diverse and as the share of federal dollars diminishes. At the state level, for example, Morse and O’Brien (2004) describe how a budget crisis in Minnesota led to a total overhaul of Extension away from traditional county offices to a mixed regional/county model. This model led agents away from their “generalist” designation and placed them back into a specialist role at one of 18 regional centers. While there was some reluctance at first on the part of Minnesota counties, they have largely found this to be a better model, and they can contract with the state for their own county-level staff.

By far the two most common comments dealt with who Extension serves and misaligned incentives for Extension principals and agents. There appears to be a strong

sentiment, especially among more experienced people, that Extension is lacking leadership and has not responded adequately to the widespread changes taking place. To quote one person anonymously, "Extension administrators and personnel need to have a better grasp of how commercial agriculture is changing if they are to make wise choices about how to serve it better. How long can it rely on the emotional appeal of 4-H?" Another individual points out that his university has not hired an Extension economist in over 20 years. Many people lamented that Extension incentives, like lower pay (as reported by Golden et al., 2005), do not help build a quality program.

After much thought about this subject, I am convinced of the following: *The appropriateness of the original public Extension model is weakened because people are more educated and information is easy to gather.* People simply don't need that kind of help much anymore. And if people can obtain information easily, it makes it difficult for Extension to offer complementary education. Budget issues, questions about using the internet, and even questions about how we serve agricultural interests relative to others all stem from this basic problem. Clearly, it will not be solved without a leader who can motivate the change while stemming the tide of criticism he or she will likely face. We need another strong leader like Seaman Knapp, who is largely credited for leading the Extension movement. This person will need to apply at least some of the principles outlined above. Of particular importance will be the need to allocate resources where Extension has a competitive advantage that can be clearly demonstrated and advertised, and where Extension has objectively provided the knowledge/information desired.

I suggest that CES focus on lowering transactions costs or raising benefits. An example is provided by e-Extension for lowering costs and expanding the pool of beneficiaries. Another option I put on the table for consideration is to focus on those college students who are nearing graduation. They are educated, but inexperienced. By the time they obtain experience they are too busy to utilize Extension education. Perhaps their new employers would be interested in supporting a short (one-, two-, or three-month) applied training program after these students graduate but before they report for duty. As for raising benefits, it might be as easy as advertising and credit-claiming. Many people already trust and believe in Extension quality.

Finally, Extension could improve on the efficiency and effectiveness of providing information and education by addressing principal-agent problems, focusing on public goods, examining government failures, and considering innovative models such as partnerships with the private sector.

[Received September 2005; final revision received October 2005.]

References

- Ahearn, M., J. Yee, E. Ball, and R. Nehring. "Agricultural Productivity in the United States." Bull. No. 740, Economic Research Service, U.S. Department of Agriculture, Washington, DC, July 1998.
- Alston, J., C. Chan-Kang, M. Marra, P. Pardey, and T. J. Wyatt. "A Meta-analysis of Rates of Return to Agricultural R&D: Ex Pede Herculem?" Res. Rep. No. 113, International Food Policy Research Institute, Washington, DC, 2000.
- Boehlje, M., and D. King. "Extension on the Brink—Meeting the Private Sector Challenge in the Information Marketplace." *J. Appl. Communications* 82,3(1998). [Published online.]

- Bull, N., L. Cote, P. Warner, and R. McKinnie. "Is Extension Relevant for the 21st Century?" *J. Extension* 42,6(2004). [Published online.]
- Evenson, R. "The Economic Contribution of Agricultural Extension to Agricultural and Rural Development." In *A Reference Manual*, eds., B. E. Swanson, R. P. Bentz, and A. J. Sofranko, chapter 4. Rome, Italy: Food and Agriculture Organization of the United Nations, 1997.
- Extension Committee on Organization and Policy. "The Extension System: A Vision for the 21st Century." National Association of State Universities and Land-Grant Colleges (NASULGC), Office of Public Affairs, Washington, DC, 2002.
- . "Leadership Advisory Council 2004 Report," Clyde Chesney, Chair. ECOP, Washington, DC, 2004.
- Extension Intranet. Website, 2005a. Online at <http://intranet.Extension.org/>.
- . "e-Extension—An Educational Tool for the Future." 2005b. Online. Available at <http://intranet.Extension.org/>.
- Fuglie, K., N. Ballenger, K. Day, C. Klotz, M. Ollinger, J. Reilly, U. Vasavada, and J. Yee. "Agricultural Research and Development: Public and Private Investments Under Alternative Markets and Institutions." Rep. No. 735, Economic Research Service, U.S. Department of Agriculture, Washington, DC, May 1996.
- Golden, B., L. Tsoodle, O. Odeh, and A. M. Featherstone. "Determinants of Agricultural Economics Faculty Salaries: A Quarter Century Later." *Rev. Agr. Econ.* (2005, forthcoming).
- Howell, J., and G. Habron. "Agricultural Landowners' Lack of Preference for Internet Extension." *J. Extension* 42,6(2004). [Published online.]
- Huffman, W., and R. Just. "Setting Efficient Incentives for Agricultural Research: Lessons from Principal-Agent Theory." *Amer. J. Agr. Econ.* 82(2000):828–841.
- Jischke, M. "Adapting Justin Morrill's Vision to a New Century: The Imperative of Change for Land-Grant Universities." 2004 Justin Smith Morrill Lecture, annual meeting of the National Association of State Universities and Land-Grant Colleges, San Diego, CA, November 2004.
- King, D., and M. Boehlje. "Extension's Future: A Conversation About What Lies Beyond the Brink." CES Pap. No. 324-W, Purdue University Coop. Ext. Ser., West Lafayette, IN, 2000a.
- . "So You Want a Job in 2005? Bringing Extension Back from the Brink." CES Pap. No. 325-W, Purdue University Coop. Ext. Ser., West Lafayette, IN, 2000b.
- . "e-Extension/USA—Building a Business Model." CES Pap. No. 339-W, Purdue University Coop. Ext. Ser., West Lafayette, IN, 2000c.
- Laband, D., and B. Lentz. "Which Universities Should Provide Extension Services?" *J. Extension* 42,4(2004). [Published online.]
- Martin, M. "The Roles of Extension in Agricultural Economics Departments." *J. Extension* 40,5(2002). [Published online.]
- McDowell, G. "Extension and Land-Grant Universities—Looking into Our Future." Paper presented at the National Extension Public Issues Leadership Development Conference, Crystal City, VA, April 2000.
- . "Is Extension an Idea Whose Time Has Come—and Gone?" *J. Extension* 42,6(2004). [Published online.]
- Morse, G., and P. O'Brien. "The Economics of Shifting from a County-Based Extension Model to a Mixed Regional/County Model." Paper presented at annual meetings of the American Agricultural Economics Association, Denver, CO, 2004.
- Rivera, W., and J. Cary. "Privatizing Agricultural Extension. In *A Reference Manual*, eds., B. E. Swanson, R. P. Bentz, and A. J. Sofranko, chapter 22. Rome, Italy: Food and Agriculture Organization of the United Nations, 1997.
- SeEVERS, B., D. Graham, J. Gamon, and N. Conklin. *Education Through Cooperative Extension*. Washington, DC: Delmar Publishers, 1997.
- Shane, M., T. Roe, and M. Gopinath. "U.S. Agricultural Growth and Productivity: An Economywide Perspective." Agr. Econ. Rep. No. 758, USDA/ERS, Market and Trade Economics Div., Washington, DC, 1998.
- University of California, Agriculture and Natural Resources. "Potential Cost-Recovery Programs to Augment Funding for Cooperative Extension." Committee Report to UC-ANR Vice President W. R. Gomes, August 2003.

- Ward, R. A., D. Bailey, and E. B. Godfrey. "Importance of Various Roles and Evaluation Methods of Extension Economists as Viewed by Extension Administrators, Department Heads, and Specialists." Unpub. manu., Dept. of Econ., Utah State University, Logan, 2002.
- Weiler, S., D. Hoag, and C.-M. Fan. "Prospecting for Economic Returns to Research: Adding Informational Value at the Market Fringe." *J. Regional Sci.* (2005, forthcoming).