

Mega Trends Driving Change within CES and Implications for Extension

Economists

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Introduction

First big trend is that the administrators of Extension programs are increasingly using the free market as their management paradigm. Responding to changing social, economic and technological conditions the conclusion seems to be that Extension:

- Can no longer serve clientele needs or do programming the way they have done in the past;
- Must broaden its appeal;
- Must search for external funds to replace reduced federal and state appropriations;
- In short must adapt its systems to new technological, political and social realities.

These conclusions are not so much new but they are being faced and interpreted in modern terms, particularly with a quasi-free market bent. Facts, values, beliefs in light of shared myths have not changed and are still a part of each educator's baggage. The trends we are dealing with today might be considered to be a struggle between old and new values, beliefs, facts and myths. An outcome of this struggle is a philosophical change where Extension education programs based on and around facts are less appreciated. For that reason scientifically based programs are much needed today.

Facts, Values, Beliefs and Myths

The changes we are seeing in Extension are a product of changed facts, values, beliefs and myths. Extension was primarily created to provide "education" to independent farmers and for the past almost 100 years did a good job. Over that time, farm numbers declined from a peak of 6.8 million in 1935 to an estimated 2.1 million

farms (1.2 claiming farming as the primary occupation) in 2002. The fact is our client base in agriculture declined by almost 5 million. Extension employment has seemingly declined at least in the past 20 years. The 1935 Yearbook of Agriculture lists 6,551 “Cooperative extension workers” nationwide, 3,344 ag agents and assistants, 1,396 home demonstration agents and assistants; 512 administrators and 1,111 subject matter specialists. The remainder are listed as County club agents and assistants. (And we think we have a lot of administrators today per employee.) In a Journal of Extension article from 2002 the authors list the employment of 16,000 extension personnel in 3,100 county offices “in addition to district and regional offices in every state and in the territories of Puerto Rico and Guam” (Kutilek, Linda M., Nikki L. Conkllin and Gail Gunderson.). This is significantly more Extension workers per farmer than in 1935. However recent years decline in numbers and because employees are being redirected, it seems to be in decline overall. Historically however, the number of Extension workers per farmer has not suffered that great a decline. The key is that Extension workers are now being redirected to clientele groups other than farmers.

Farm Issues

A large numbers of (small) farmers earn the majority of their income off of the farm. At the same time, large farms are becoming increasingly concentrated and integrated. In 2002 5% of the farms accounted for 99% of the ag. sales. Of those who list farming as their primary occupation 32% are over age 55 raising concerns over a graying farm population.

But none of this is new. From the 1961 “Adjustments in Agriculture – a National Basebook,”

- “Buyers tend to be larger and fewer in number. In many country sales of farm products, the farmer obtains a bid from only one buyer” (Ogren and Scoville).
- “For every 100 farms in 1940 there were only 75 in 1958 but the average farm in 1958 had 1.4 times as much land and produced products with nearly twice the value with 46 percent less labor.” (Brewster and Wunderlich)
- “One of the principal ways in which farm people have adjusted to economic conditions is by taking off-farm employment...By 1959, unpublished data show this percentage to have risen to 40.6 percent.” The proportion of farmers working full-time off of the farm “rose steadily from 6 percent to 22 percent” over the period 1934 to 1954. (Beale and Shoemaker)
- “Specialization is increasing rapidly...” (Kiehl)
- “Regardless of the level of prices and income, there is a strong economic incentive to consolidate farms as long as costs per unit of production would be materially lower on larger farms.” (Brandow)

Several of the issues addressed in 1961 sound a lot like those of today. Opportunities would seem to be opening at the top and the bottom. With a few exceptions, very few Extension programs are designed specifically for the ends of the spectrum. Most programs cover the spectrum and hope they fit all sized farming operations. Notable at the bottom end is the Small Farmer work of the 1890 institutions. Notable at the top end

are Purdue's Top Farmer, Danny Kleinfelter's program for top managers and the Master Marketer program of Texas A&M.

Despite the dilution of expertise, Ag. continues to be an important part of Extension programming. Trends in agriculture would seem to provide opportunities for programs geared to older farmers including transitioning into and out of farming estate and tax management planning; labor management and policy.

More Really Big Trends

In my opinion, the following changes are shaping Extension programming today.

- Administrated restructuring of agricultural colleges. Including changing names to natural resources colleges and changing departmental names and missions.
- A shift from applied to basic research.
- Changes in the Service Mission and Expertise of the Educators (Less but more specialized experts to serve more diverse clientele).
- Educator background shift. (Less from U.S. farms more foreign born and from urban backgrounds than in the past.)
- Leadership's (administration's) lack of experience and expertise.
- Changed Federal/State Relationship. (Formula funding being directed to competitive grants. CSREES as a funding agency not an education agency.)

These changes have been led by shifts in:

- Philosophy
- "Client" Base
- Technology

- Costs
- Specialization/Expertise
- Federal/State Interaction
- State Specific Internal Matters
- Global Factors
- Loss of Identity
- And Other Factors.

Regarding Extension Philosophy

Chester Fehlis, former Director of Extension for the Texas Extension System stated:

We cannot have leaders who constrain Extension to serving only production agriculture and to working only in rural areas. The vision for Extension must parallel the needs of our nation; the vision must recognize both the basic, traditional needs and the ever-evolving needs of our society in a rapidly changing, diverse world. We need leaders with the astuteness to recognize the value of faculty contributions to traditional needs, but also to openly reward faculty who effectively respond to the needs of our dynamic society.

The risk of successful, innovative, creative, and visionary Extension educational programs reverting to mediocracy in our country is real. People placed in government and university leadership roles who are not visionary and whose only knowledge of the Extension system is from the past can pose a threat that ultimately contributes to the demise of Extension.

A change in philosophy from farming first seems to be leading our administrative thinking about Extension.

Client Base

In the aggregate, farmers are better educated and wealthier than in the past and the largest farms either have hired expertise or can hire the expertise they need. Extension economist opportunities are available in consulting by those with specialized expertise and in providing education programs that are within the purview of extension economists but which are not generally of the traditional nature such as the “transition” area.

The diversity of client groups provides opportunities for programs on immigration, climate change, energy issues, rural community infrastructure, aging or the farm population, food insecurity and safety, organic farming among others. All are on the table but few of these are tackled by Extension economists. A dilution factor may be in play here. There are many topics and less economists to handle them.

Technology

Over time, technology changes has shifted the dependence of farmers from domestic demand to international corporations. Improvements in transportation and handling have made it possible for international agribusiness firms to grow and/or purchase and transport commodities across the world. The cheapest source of supply often gains the edge over domestic product in a world where corporate profit and stock value is what matters most. In addition, exchange rates have become as important to food production and demand as were tractor operating costs in the past.

Opportunities continue to exist for extension economists to provide education programs on producing for international markets, transportation, basics of international trade, international investing and financial management.

Costs

A particular trend affecting international relations and farmers cost structure is the biotechnology revolution. Production cost curves were shifted downward for producers using biotech but their dependency (on the corporate America) curve was shifted upward. Farmers using biotech must pay technology fees, sign agreements with the companies supplying the seed to abide by company rules, and are users but not owners of the seed. Economists today frequently assess the financial implications of biotech but not the social costs involved. Implications include the need for specialized expertise in this area.

Despite the feasibility, biofuels and energy costs are becoming increasingly important to extension economists. A frequent question asked of economists today, “are energy costs justified or are the companies gouging us?” Many in our profession are engaged in the biofuels feasibility analysis and in assessing the impact of high fuel costs on production and profit margins. Grant funding availability is likely to continue to make this a hot topic. A question is what is going to be given up to pursue new program areas such as bio-energy?

Federal/State Funding

According to a 2005 survey by the U. of Illinois, mean federal funding for Extension programs nationwide are about 17.3% (12.45 std deviation). Grants and contracts from the fed make up 6.32% of funds provided to the states for Extension programs. States provide 12.51% of funds, counties 17.41% and grants 12.16% of funding for state

Extension programs (Clark). Over time the federal formula portion of funding has declined relative to state and local support. Grants are filling the gap.

Future funding is tied in with federal budget issues, international trade, and energy. War funding influences what's available for domestic spending. Domestic and foreign opinions influence demand, trade agreements and sanctions. Production costs are tied to energy prices, which are tied to international oil production and politics. Subsidy programs can be both a blessing and a bane. Lower costs of production can result from Federal legislation and appropriations. However higher land rent can also result. (Did subsidy programs also keep marginal farmers in business longer creating additional competition for land?)

Public funding for agricultural research and development was estimated to be in excess of \$3.8 billion in 2000. Private expenditures exceeded this amount by \$673 million according to Alston and Pardey. Over time, Federal appropriations to research and extension have increased in real terms. However some uncertainty over future funding exists, especially since in recent years federal budget surplus has been eroded by tax cuts and increased military spending. Recent initiatives like "Create-21" have argued for increased formula funds for the Land Grants. Given enough political pressure, funding cut-backs are not imminent. These trends do however have an impact on programs that can be made available.

CSREES has become more of a granting agency than an education or research support agency. This has been in line with Reagan Revolutionary ideals of smaller government, devolution and that the private sector can do it better. Call it free market government or what have you. Congress has increasingly emphasized competitive

funding for special projects which has had the effect of providing “top-down guidance” to programs. At the same time, individual Land Grants have been seeking and receiving “ear marked” funds from their Congressperson for special projects. Still with strings attached.

Agencies seem to have heard the more competition/less government message loud and clear, while ignoring or benefiting from ear marks. In consequence, the partnership between the Land Grants and the Agencies has been weakened except in the case of competitive and special grants programs winners. Related to ag. research, Huffman and Just provided an analysis of the impact of changing funding structure on program efficiency and that perhaps formula funding rather than competitive funding is a relatively more efficient way to go. Extension as a conduit for research information to the public would by its mission suffer from inefficiencies. Emphasis placed on competitive funding places National Program Leaders (NPLs) in an overseer and manager’s role rather than in a partnering role with the Land Grants. A consequence of this has been that NPLs as co-educators, and federal policy information and update conduits, have had to be replaced by state level extension specialists who must take time to educate themselves on federal policy matters.

Policy issues education programs are needed to provide some insights into these types of issues. Public issues education programs are possible opportunities for extension economists arising from these events.

Continued Specialization

Another on-going trend is the concentration of ag sales. Citing the 1997 Census of Agriculture, EPA stated that by 1997 approximately 46,000 farms accounted for 50% of

ag. sales. This number in and of itself doesn't indicate much. A better indication of increasing concentration might be, according to the 2002 Census of Ag., 2.7% of the farms had sales of \$1 million or more and these accounted for 95% of the value of agricultural products sold. In 1997 this same tier comprised 2.4% of the farms and had 82% of the value of agricultural products sold. (2002 Census of Agriculture)

Concentration on the farm does not say anything about concentration on the buying side of agriculture and the relatively little marketing power of the majority of farmers. The majority of U.S. farmers will still have little bargaining power over the price they receive. Negotiating contracts, timing of sales and crop mix are traditional economics education programs and will continue to be useful to producers.

Extension Employee Specialization and Redirection

States in general have fewer but more specialized agents and specialists. Less of these agents are exclusively ag. agents. In Alabama area agents specialize in either ag. or non-ag areas. Agents shifting from the old paradigm are often put into specialized roles with little additional training for their new assignments.

At the planning level, emphasis has been shifted away from grass roots planning and programming to top-down planning and programs. Specialists have in the main become departmental faculty, many with split appointments and responsibilities in teaching and research as well as Extension. Time spent on Extension education is diluted by these other demands.

Loss of Identity

The early identity of Extension was an organization to serve farmers and farm families. This has been changed to serving almost every purpose under the sun, including

arts, theater, conflict resolution, urban consumer/horticulture, public health, etc. (Clark).

This however carries the danger of being identified with everything and with nothing in particular as well as alienating the traditional client base.

Summary

Why do these trends matter? Farm numbers have been declining since 1935.

Concentration and integration is an issue going back 50 years. Both of these issues have been of concern over those time periods. New issues/trends have emerged which are part of technology change, free trade, and declining public finance. Methods and education programs can be easily adapted from the economics discipline to deal with issues such as sustainable agriculture, organics, biotech, biofuels and trade. Those not so easily dealt with are environmental and social and the farmers place in society. Experts with little training are called upon to answer sometimes complicated clientele questions.

Transitions out of farming, retiree transitions into farming, health care, rural communities and rural infrastructure are all programs that are not traditionally tackled in our profession but are ripe for the picking. Bull et al. asked the question “Is Extension Relevant for the 21st Century?” The answer is that it is more relevant today than ever because of its ability to evolve and respond to the challenges presented by change.

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