

A Positive Role for Graduate Agribusiness Programs in Agricultural Economics

Lynn W. Robbins

Agribusiness graduate students should do problem-solving and take business courses to understand the environment in which they will practice their theory. The longer we wait to teach them application, the greater are the chances of losing our critical mass in terms of relevancy and political support. We can, and should, cultivate a broader range of agribusiness problems and clientele groups. We can effect change immediately by doing more agribusiness research. We can assure our long-run existence through a stronger political support base by educating our graduate students in the ways of firm-level agribusiness application.

Key words: agribusiness, application, clientele, curriculum, graduate, research.

It is obvious from the title that my perspective on the approach to this topic is that of supporting a position. There may be disagreement about the picture painted of agribusiness in agricultural economics departments, but if it generates professional debate, the purpose will be served.

Specifically, departments of agricultural economics not only should, but must, expand into a stronger agribusiness orientation because of our own needs as well as those of the nonfarm, agribusiness sector and because of today's political reality. We are well equipped to work with agribusiness, and such an involvement would provide research relevance for ourselves and good experience for our students.

Consequently, the bulk of the argument for graduate agribusiness programs requires ar-

guing for expanded efforts in research and extension as well as teaching. This systems-solution maintains that we need greater research and extension effort in agribusiness to support teaching properly.

The typical response given for not becoming involved in agribusiness management is, "We are not in business administration, we are agricultural economists. We don't know about personnel, logistics, merchandising, organizational theory, and all those things that business school people do, so why should we become involved with agribusiness management?" Although there may have been some historical or traditional validity for this position, it is indefensible today, given the realities of the 1980s. Would we have existed at all if we had stayed out of management in the first place? As agricultural economists, we find our roots in the management of farms and ranches. Agribusiness management seems a natural extension of farm management.

Debate about the benefits and costs from the variety of involvement with the private sector as it becomes more research self-sufficient has been presented by a number of authors (Dobson and Matthes; French 1975; Grayson; Robbins, Harsh, and Allen; Scroggs; Shaffer; Snod-

Lynn W. Robbins is a professor and head, Department of Agricultural Economics and Agricultural Business, New Mexico State University, Las Cruces.

The author wishes to thank Charles French, R. J. Hildreth, Marc Johnson, Dan Padberg, Leo Polopolus, and two anonymous reviewers for their comments. The contents of the paper remain solely the author's responsibility.

An earlier version of this paper was presented in the invited paper session, "Involvement of Agricultural Economics in Graduate Agribusiness Programs," at the annual meeting of the Western Agricultural Economics Association in Manhattan, Kansas, 12-14 July 1987.

grass). Disagreement exists about the proper degree of involvement, but each one admits to major benefits from such efforts.

Why should we look for such benefits from the agribusiness sector rather than leaving the area to business schools? As agricultural economists we have an advantage over business schools for working with the agribusiness sector; agribusiness is different than business, and a void exists in the marketplace (i.e., too few academic departments are actively working with agribusiness).

What is our advantage? Agricultural economics departments are basically different from the business schools and their departments of economics. Most agricultural economics departments are in land grant schools, and the strength of the land grant system is its tripartite mission of agricultural teaching, research, and extension. Thus, we differ from programs in which faculty are induced to do research on their own time, independent of their teaching activities. By our nature we are different, and by our nature we have an advantage.

We apply research results as part of our teaching and research mission rather than only engaging in basic research. We must maintain our uniqueness that comes out of that application (Hoch). It was application that earned us praise from Leontief in his 1971 AEA presidential address but which Bonnen says we no longer deserve.

Our traditional farm and ranch clientele groups are shrinking. The discipline has recognized the potential for a larger clientele since changing the names of our journals from "farm economics." More recently we have even established agribusiness journals. However, this paper maintains that we must embrace agribusiness to a much greater extent than that currently existing. We shun any substantial expansion into agribusiness because we are moving more toward a disciplinary approach that leads us away from relevancy to agribusinesses or other "user groups," and we feel, incorrectly, that we have nothing to add or contribute to the agribusiness sector. Both reasons are destructive.

Political Support and Agribusiness

We need a strong external political support base if agricultural economics departments are to continue with a justifiable mission, inde-

pendent from departments of economics and departments of business. We should not mimic the business schools or departments of economics.

We should remember, by applying our science to someone's problem, we have performed a political act that should generate political capital. In exchange for the support received from these clientele groups, institutions must, in turn, be influenced by them. (Perhaps that is what troubles us about working more closely with agribusiness. Do we feel that our objectivity is so fragile?) The magnitude of that political capital is a function of the number of users and the value of the information to those users (McDowell, pp. 2-3). Consequently, we should define our clientele base as broadly as possible and include many more agribusiness efforts where we can offer solutions, especially if, by doing so, we enhance our relevancy.

The Scope of Agribusiness

A question one often hears when trying to discuss agribusiness is "How is it defined?" Many definitions exist, but, in this case, agribusiness should be defined as broadly as possible. Agribusiness includes every enterprise from input supplier through the farmer and rancher to the final consumer. Some definitions even include the land grant university (Robbins, Harsh, and Allen).

Agribusiness is an important sector and is a place where we should apply our economic theory and disciplinary concepts to see if they do what they are supposed to do and to ensure disciplinary relevancy. There are a number of authors who feel our support group is shrinking and some, although not all, recognize the need to expand that clientele group by including agribusiness more completely.

An Eroding Base

These authors (Clevenger; Debertin and Infanger; Hildreth; McDowell) have taken the position that it is doubtful that colleges of agriculture in land grant universities will continue to maintain, let alone increase, their support base for federal and state funding if they continue to focus on programs primarily for the full-time family farm and ranch. "The financial crisis in agriculture has made us keenly aware of how small this base of support really

is and how few commercial family operations might exist in another decade or two. Public support for the land grant mission is critically linked to our ability to develop new clientele for research and extension programs and a revised teaching focus given the emerging changes in the structure of American agriculture" (Debertin and Infanger, pp. 10-11).

Potential Agribusiness Clients

Now let us examine the traditional and emerging clientele base in more detail. Our traditional clientele, family farmers and ranchers, held similar values. Now we have a bimodal clientele base. On the one hand, we have the professional farm or ranch manager with a holistic, return-on-investment, professional approach to management. On the other hand, we have the part-time farmer or rancher whose off-the-farm income is probably greater than his farm income. The goals of the part-time farmer are probably to supplement income, minimize farm losses, and maximize the rural lifestyle with different capital/labor constraints and attitudes toward risk than we are accustomed to dealing with. They are more likely to be white collar and better educated than the clientele we have traditionally served. They will be more flexible in filling market niches and more interested in the rural community.

What are the implications for political support with this new clientele group and the emerging structure in rural communities? We will see a decreased support from the mid-sized farms and ranches because their numbers are declining. There will be decreased support from the few megafarms and ranches because the help we traditionally provide is not something they need. They have their own capabilities in those areas. We could have increasing support from part-timers if we consider their different objectives. With part-timers, the parity or social equity issue is lost. Part-time farmer incomes are not likely to be below average because of their off-farm activities.

We could increase support from part-timers. Co-opting this new rural leadership means expanding our traditional clientele group to include members of the agribusiness and rural nonagribusiness sector. This is where we will find part-timers.

Much of our traditional work beyond the farmgate has related to public issues. In marketing and finance, especially, we have had

activities to explain how the systems work. That approach is good for general industry efficiency and public policy. As we begin to relate to agribusiness, we need to shift to private actions. How do you introduce a product? How do you design individual financial arrangements? How does a firm's management operationalize for itself and its customers the good industrial efficiency work we do for them? In essence, our research should change from an exclusively analytical orientation to a managerial orientation.

Ethically, what form should agribusiness research assume? Shaffer says he "would restrict studies of efficiency at the firm-level or below to the following [situations]: (a) Where the research is directly tied to an extension program and immediate use of results by competitive firms unable to finance their own research is highly likely. (b) Where the research ties to a broader subsector problem or study and thus has a public significance. (c) Where new methodology is being developed or tested. (d) Where the research is primarily a training exercise" (p. 8). We have yet to meet our full potential of firm-level activities, even with this restrictive use.

A large marginal return from added firm-level research will most likely come from studying unique firm problems that arise across the entire range of agribusiness types. Until we work more extensively with agribusiness firms, we cannot know those problems.

Joint university-agribusiness research conducted under existing policies provides university personnel with insights beyond those gained from less pragmatic efforts. Applied research not only demonstrates theory's usefulness and validity, it also updates the researcher's industry knowledge. University personnel can enhance their teaching by bringing realism into the classroom and can conduct more effective research by obtaining detailed information about how agribusiness firms are organized and managed.

Graduate and undergraduate intern programs, faculty consulting, extension programs, executive lectures, and funds for contracted research are among the techniques currently used. Faculty-executive exchange sabbaticals, graduate student apprenticeships, and joint university-agribusiness advisory boards are other techniques (Scroggs).

The need is to restructure existing and build new university-agribusiness relationships to

obtain greater joint benefits. But do we have a comparative advantage over economics departments or business schools? It seems apparent that we do.

Why Agribusiness?

We have a competitive advantage, or at least a unique product to offer in agribusiness teaching, research, and extension because of the uniqueness of rural business, our knowledge of how agriculture works, and because we can fill a void in the market. As agricultural economists, we bring theory with a special understanding of, and empathy for, agricultural problems. An agricultural economist with business training is better able to solve management-related problems or at least cooperate on a multidisciplinary team when working with agribusiness.

Agricultural economists are especially well suited to work with small rural businesses because rural businesses are unique. There is a tremendous business variety in the rural sector. These businesses vary in size, from giants to one-person and one-family organizations. However, most rural businesses are small compared to their urban counterparts. The traditional philosophy of rural life also tends to make them more conservative than urban or metropolitan businesses. Rural businesses are often family oriented, and they are usually community oriented where interpersonal relationships are important; associations are long-term. Rural businesses may be seasonal in nature because of their dependency on agricultural production. Similarly, they must deal with the vagaries of nature. In addition, the impacts of government programs are felt throughout the rural economy (Duft). The rural and agribusiness industry sectors are unique and well suited for an agricultural economic orientation to problem-solving.

Agricultural economists also have a comparative advantage in working with the larger, even giant, agribusiness firms. Here, comparative advantage stems from our knowledge of agriculture, and especially the commodity orientation. Whether we are asked to work with these larger agribusinesses is a function of their management's orientation. If they believe they are an agribusiness, we can work effectively with them. There is a market niche. We have the basic skills needed and, both sides will ben-

efit from our increased efforts with agribusiness.

Graduate Programs and Agribusiness

The foregoing discussion should lead naturally to the position described in the title of this paper. There is a positive role in agricultural economics for graduate agribusiness programs, i.e., it would be good for our students if (a) a balance of effort between basic and applied research could be maintained, (b) applied agribusiness research will enhance our relevancy, (c) agricultural economists are uniquely equipped to work with agribusiness, and (d) the political support base could be expanded by including agribusiness. Consequently, it is necessary to bring research and teaching into the agribusiness arena at the graduate level. As Crowder pointed out more than a decade ago, "In graduate programs the emphasis is definitely on rigor, and with this training the young professional by nature carries forward those things for which he has been dually rewarded in graduate school" (p. 992).

Barkley, in his 1984 paper entitled "Re-thinking the Mainstream," points out that skill in problem recognition may be the most neglected part of training contemporary agricultural economists. The benefits of changing to more application, Barkley maintains, are threefold. First, our professional discourse will include think pieces as well as quantitative pieces. Second, we will apply our best tools in their most favorable light. Third, we will bring new and exciting perspectives to the solution of problems and to the formulation of policies for the rural United States.

The courses students should take, to prepare them properly to work in agribusiness, reflect the need for an ability to apply their economic education and knowledge to practical firm-level problems, as well as to more traditional industry problems. Naturally, these individuals need a strong grounding in economic theory and quantitative methods so they will have something to apply. In addition to this core, they will need courses and experiences that will allow them to deal properly with and apply economic theory. Polopolus states the following:

What is lacking in most masters and Ph.D. agricultural economics programs is a set of courses on managerial

economics of firms beyond the farm gate. We need to take a serious look at what employers need and what special expertise we have to offer. If we fail to alter our graduate programs accordingly, agribusiness firms will increasingly shun traditional agricultural economics masters and Ph.D. degree holders in favor of business school products. (page 809)

[Agribusiness requires] increased attention in such areas as post-harvest handling, processing, raw product assembly, transportation at various stages, wholesaling, storage, retailing, food service, exporting, importing, and pricing at all levels. The age of computer technologies also provides unlimited opportunities for improving product and input market information and thereby pricing and marketing efficiencies. (page 810)

Because agribusiness students will be expected to work, teach, research, and extend at the applied level "beyond the farm gate," their agricultural economics specialty will, of necessity, be broad and especially demanding. The proposal is that agribusiness students should become generalists, not specialists. Consequently, they must study two or three of the traditional areas of agricultural economics specialization.

An ideal combination of areas would be marketing and price analysis, agricultural finance, and farm management. The traditional advanced farm management area or course should be reworked and renamed agribusiness management and, where resources and demand allow, be followed by an advanced agribusiness management course.

A marketing and price analysis emphasis is necessary to understand the economic environment within which firms operate and compete. Finance is the language of agribusiness. It is one traditionally recognized area of study in our discipline that considers firm-level study legitimate. Advanced farm and agribusiness management is the umbrella area for this core. Farm management is included as the traditional area that most closely resembles the concept of agribusiness used in this paper.

Beyond this core—perhaps more properly called super core—graduate students intending to work in the area should have as many of the following courses, or topic areas within courses, as possible to understand how the learnings from the core (theory, quantitative methods, marketing, price analysis, finance, and agribusiness management) relate to the whole. Courses that provide this understanding include cooperatives, spatial analysis, international trade, risk analysis, merchandising, organizational theory, behavioral theory,

logistics, sales, retailing, and personnel management.

Of this list, special emphasis should be placed on personnel management, as well as organizational and behavioral theory, because of our assumptions about human behavior. The rest of the list are subjects that would help an individual working with an agribusiness industry or firm take a systems approach to problem solving by being either knowledgeable enough to provide answers directly or aware of the type of assistance needed to bring outsiders in to solve the problem.

The question of where these subjects should be taught is not critical, but it is critical that agricultural economics students specializing in agribusiness have exposure to them. If the courses are available in the business school, we should be pleased to send our students there; if not, we may have to teach them ourselves. In most land grant institutions, a majority of the courses will be available from the business school. As French (1975) points out, "most strong agribusiness education programs focus on a good understanding of two general notions. The first is the interactions of the business entity, whether farm or non-farm, with the economic, political, legal, and social environment in which the entity operates. The second is a general notion of strategic management. At least five more specialized management areas are usually covered—financial management, production management, general marketing management, international marketing management, and risk management" (p. 11). The potential is great for effective agribusiness education when it is put in a context of the total university. A critical mass in agribusiness management education involves agricultural science, agricultural policy, and business studies. Obtaining all of this is the biggest problem for an optimum agribusiness education program. Compromises are inevitable. The agribusiness management component has been among the last of these educational areas to develop. Earning its way into a university structure is not easy (French 1987, p. 11).

Two final critical components are recommended for an agribusiness curriculum. In fact, in a somewhat more general sense, these last two components are important to all agricultural economics graduate students. Both components relate to the need for students to have ample opportunity to apply what they have

learned to real-world problems. First, students should have classroom exposure to the case-study approach to learning. Their first opportunity to apply theory to real-world problems should not be on comprehensive exams or on the job. Using the case approach implies that students, having taken some of the previously recommended courses from the business school, will have that knowledge reinforced and expanded through application in one or two agricultural economics courses. Obviously, quality can be enhanced if a substantial number of the topics taught are grounded in firm-level research by the faculty.

Second, students should have at least one real-world, hands-on, faculty-guided, firm-level, broad-scoped, project-analysis problem experience. They should be shown how they can apply their theory, marketing, finance, quantitative methods, and personnel knowledge to solve someone's problem.

If we do not show students application, we have not completed the teaching task, just as we do not complete our research function if we do only basic research.

Conclusion

It is my fear that the longer we wait to teach graduate students application, as well as theory and methodology, the greater are the chances of losing our critical mass in terms of relevancy and political support. We can, and should, as professional agricultural economists, begin to cultivate a broader range of practical problems and clientele groups, especially in the agribusiness sector.

However, if we maintain graduate programs that stress basic research, methodology, and analytical ability to the exclusion of application, the next generation of agricultural economists will continue the trend away from application and toward basic research. This does not say we should necessarily teach such courses as personnel management and merchandising or that our students should become experts in management theory; it does say they should have an opportunity to do some problem-solving during their graduate training and take enough business school courses to understand the environment in which they will practice their theory.

There are two fronts of attack for ensuring and building our relevancy and political sup-

port base through agribusiness. We can begin to effect change immediately by what we do in our current research efforts, that is, by doing applied agribusiness research. We can assure our continued existence with a balance of relevant theory, methodology, and application, through a stronger political support base, by educating our graduate students in the ways of firm-level agribusiness application.

[Received July 1987, final revision received March 1988.]

References

- Barkley, P. W. "Rethinking the Mainstream." *Amer. J. Agr. Econ.* 66(1984):798-801.
- Bonnen, J. T. "A Century of Science in Agriculture: The Lessons for Science Policy." *Amer. J. Agr. Econ.* 68(1986):1065-80.
- Clevenger, T. S. "The Decline of the Land Grant University Agricultural Complex." Selected paper presented at Western Social Science Association annual conference, El Paso TX, Apr. 1987.
- Crowder, R. T. "Research Needs and Priorities in the Food System: An Industry Viewpoint." *Amer. J. Agr. Econ.* 58(1976):991-99.
- Debertin, D. L., and C. L. Infanger. "The Land Grant Mission: Will It Survive the Restructuring of Agriculture?" University of Kentucky, Dep. Agr. Econ. Staff Pap. No. 223, Mar. 1987.
- Dobson, W. D., and R. C. Matthes. "University-Agribusiness Cooperation: Current Problems and Prognosis." *Amer. J. Agr. Econ.* 53(1971):557-64.
- Duft, K. D. *Principles of Management in Agribusiness*. New York: Reston Publishing Co., 1979.
- French, C. E. "Selected Alternative Programs for Bringing the Real World to the Undergraduate Classroom." *Amer. J. Agr. Econ.* 56(1975):1163-75.
- . "Tomorrow's Agricultural Industries and Leaders." Paper presented at the White House Conference on Agribusiness Education, Washington DC, 1 Apr. 1987.
- Grayson, C. J., Jr. "Management Science and Business Practice." *Harvard Bus. Rev.* 51(1973):41-48.
- Hildreth, R. J. "The Role of the Land Grant College of Agriculture and Home Economics in the 1980's: When in Doubt Use Logic." New Mexico State University, Dep. Agr. Econ. Staff Pap. No. 12, Sep. 1979.
- Hoch, I. "Retooling the Mainstream." *Amer. J. Agr. Econ.* 66(1984):798-801.
- Leontief, W. W. "Theoretical Assumptions and Non-Observed Facts." *Amer. Econ. Rev.* 75(1971):293-307.
- McDowell, G. R. "The Changing Political Economy of Land-Grant Colleges of Agriculture: Sources of Conflict between Research and Extension Interests." Unpublished paper, University of Massachusetts, Dep. Agr. and Resour. Econ., Feb. 1987.

- Polopolus, L. C. "Agricultural Economics beyond the Farm Gate." *Amer. J. Agr. Econ.* 64(1982):803-10.
- Robbins, L. W., S. B. Harsh, and J. W. Allen. "Enhancing Mutual Benefits from Farm-Level Research Efforts." *Amer. J. Agr. Econ.* 59(1977):583-86.
- Scroggs, C. L. "The Relevance of University Research and Extension Activities in Agricultural Economics to Agribusiness Firms." *Amer. J. Agr. Econ.* 57(1975): 881-89.
- Shaffer, J. D. "A Working Paper Concerning Publicly Supported Economic Research in Agricultural Marketing." Washington DC: U.S. Department of Agriculture, Econ. Res. Serv., Mar. 1968.
- Snodgrass, M. M. "Off-Campus Work and Study Programs for Undergraduate Students in Agricultural Economics and Agricultural Business Management." *Amer. J. Agr. Econ.* 56(1974):1153-62.