Land-Grant Colleges of Agriculture: Renegotiating Or Abandoning A Social Contract

by George R. McDowell

The land-grant university system was established as an institutional mechanism to influence and control the agenda of scientists within a revolutionary system of higher education. It was explicitly anti-elitist—an experiment in democracy—as compared to the dominant British and European models of the late 19th and early 20th centuries. The land-grants were to be better than Harvard and Yale under the values of democratic America— they now may be just as bad.

There are three ways in which this uniquely American experiment was explicitly democratic. First, land-grant colleges were "peoples colleges" and as such were to provide formal classroom instruction, even in the classics, to the children of "ordinary" people, many of whom were farmers. Second, the knowledge base of the college was to provide resources for those who could never qualify as students in its classrooms even if they worked in fields, machine shops, or kitchens.

Finally, and most important, land-grant colleges were to make all human endeavors legitimate subject matter for scientific investigation and scholarship. Prior to their establishment acceptable, scholarship was largely confined to theology, history, the arts and letters, the law, and from the German universities, medicine.

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This change in the character of scholarship was profoundly democratic. It meant that research could provide scientific insights—and answers—to people's problems on the farms and in the homes. And it created a system to directly distribute this knowledge to non-students via extension. In turn, rural people politicized and democratized the scholarly agenda to ensure that scholars stayed on course. In crafting the land-grant system, rural people had a mission and a goal—the application of science to rural problems.

The Political Economy of the Land Grant Model

The application of science to agriculture was both scholarly and political. The land-grant model was principally designed as a means of keeping the scientists' feet to the fire with respect to their research focus and goals. This control of the scholarly agenda—not the combination of teaching, research and

"The work of a County Agent," as seen by Norman Rockwell in years after World War II.

extension under a single administration as is often argued—is the fundamental characteristic of the land-grant model. Crafting the arrangements to control the scientists required political support; maintaining it today also requires support.

In several ways the original Morrill-Wade Act of 1862 that initiated the land-grant system failed to accomplish its stated purpose. Information on scientific farming was limited. The application of science to agriculture needed more than classrooms and students; it required new knowledge that could only be supplied by research and experimentation. Thus the Hatch Act of 1887 established agricultural experiment stations as an integral part of the system.

Still, getting science applied on farms eluded agricultural groups. According to Rainsford, most of the students in the land-grant colleges—even those from farm families—did not study agriculture. Results of research and instruction did not reach farmers because they stayed on the farm. With the 1914 Smith-Lever Act, a cooperative extension was established in each state. Finally, after 52 years, the land-grant system's true purpose looked achievable. In the 50 years that followed the system basically stayed the course and fulfilled its purpose.

However, in recent years, it has been difficult if not impossible for that system to produce a sustained flow of benefits to either old or new clients or for those clients to generate the resources needed to support their own scholarly agenda. This inability to sustain an institutionalized test of scholarly relevance is at the heart of the dilemma of land-grant colleges of agriculture.

The Discipline Communities Control the Agendas

In one of the most widely circulated discussions of changes within the land-grant universities, Edward Schuh in the second 1987 issue of CHOICES identifies the attitudes of scholars as a prominent symptom of "malaise" within the system today. It is, he asserts, the "pervasive attitude...that applied work is not important; publishing for professional peers and consulting for the highest paying firm or government agency are the priority tasks." Schuh also makes clear that a sustained flow of information directed to non-student clients of the university has not been realized.

Table 1.—Rank order of criteria for research problem choice among agricultural scientists

Rank	*Criteria*
1	Enjoy doing this kind of research
2	Importance to society (scientist's own judgment)*
3	Availability of research facilities
4	Scientific curiosity
5	Potential creation of new methods, useful materials/devices
6	Publication probability in professional journals
7	Clients' needs as assessed by you
8	Likelihood of clear empirical results
9	Funding
10	Evaluation of research by scientist in your field
11	Priorities of the research organization (college or USDA)
12	Potential contribution to scientific theory
13	Demands raised by clientele
14	Credibility of investigators doing similar work
15	Currently a "hot" topic
16	Length of time required to complete the research
17	Potential marketability of the final product
18	Colleagues' approval
19	Publication probability in experiment station bulletins/reports
20	Feedback from Extension personnel
21	Publication probability in farm and/or industry journals

From Busch and Lacy, *Science, Agriculture, and the Politics of Research*, Westview Press: Boulder, CO, 1983. Chapter 2, Table 2.1, p. 45.
**Parenthetic comment added from interpretation of the text.*

Schuh's observations are consistent with the shifts in the control of research agendas which have occurred. Today the dominant influences on the research agenda reflect the value structure of the scientists or are controlled by the larger disciplinary community.

Work by Busch and Lacey indicates that today the test of the appropriateness and relevance of agricultural science scholarship is left primarily to the scientists, to the norms they have internalized, and to the attitudes of the disciplinary communities (Table 1).

Of the few criteria that can be controlled or influenced administratively, the "availability of research facilities" ranks third and "funding," ninth. Funding, however, is increasingly in the hands of individual faculty members and out of the hands of administrators.

The Busch and Lacy research also makes clear that agricultural scientists are committed to excellence and to work of use to society, but scientists insist on determining for themselves what is excellent and what is useful. It is also clear that they place enormous value on the written and published word since that is the primary way to gain approval from scholarly peers. This approval may be as myopic as the judgment about the scholarship in the first place.

The Currents of Change

• Authority. The dominance of professors in controlling the scholarly agenda was not always the case. In the past the test of relevance was directed by university leadership—by deans and presidents who controlled the flow of funds and the system's budget. It was fundamentally a political budgetary test; most research resources, both state and federal, were controlled and awarded by the university administration.

The relative power of administrators vis-a-vis faculty has changed. More important has been the change in who controls the test of scholarly relevance. Control has moved away from interest groups acting through university administrators and state budgets. Schuh suggests strengthening the authority of university administrators as a major way to end the "malaise" of the land-grant university. He does not suggest how that can be done however, and assumes simplistically that the decline in authority is the cause of the malaise.

Yet certainly there is little to be gained by hiring tyrants as administrators. And there is ample evidence and many hor-

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ror stories about the tyrannical rule of deans and presidents when they did have greater authority over the research agenda. Further, it is erroneous to think that the only way to regain scholarly relevance is through a return to authoritarian rule and all the vagaries that go with that.

• **Funding.** Formula funds to colleges of agriculture in both relative and real terms have declined as competitive grant and contract funds going directly to faculty members have increased. This shift in sources of funds has increased the independence of university researchers.

It is important to remember that the funding of faculty salaries and operations of the physical plant do not have an overwhelming influence even though these dollars amounts are the bulk of all university budgets. The relatively smaller amounts of grant and contract money that are available to support research assistantships, supplies, travel, and other "discretionary" activities are the key funds that determine influence.

• **Power.** At the same time that contract funds have increased, the relative power of agricultural interests has diminished. Non-farm elements of society now make claims on the agricultural colleges. However, the research agenda has not yet shifted to meet these new claims. In turn, scientific output to offer new nonfarm constituencies are limited. Consequently, the universities have had difficulty in gaining much support from these new nonagricultural clients. It is also evident that "collecting" political support from those groups will require different techniques from those used with farming people "who are relatively easy to find when you need them."

There has also been a major shift in power within the governance and programs of the land-grant universities. Enrollments increased sharply in the 1950s and 1960s and the increase took place largely outside the colleges of agriculture. With the growth in enrollments came an increase in the number and size of disciplinary departments, their recognition as separate entities, and increased influence on university procedures and programs by faculty with little sympathy with land-grant traditions.

• **Prestige.** The growth of disciplinary departments further strengthened the sanctity of disciplinary research as an end in itself—to the detriment of problem-solving or multidisciplinary problem-solving research. The post-World War II establishment of a national science policy spearheaded by programs at the National Science Foundation and the National Institutes of Health has had a major influence on prevailing norms and views about scholarly excellence—values, beliefs and politics—on campuses and within major scientific and disciplinary associations. Funding was principally directed to disciplinary scholarship. Bonnen concludes that because scholarship in colleges of agriculture focused on problem solving, it suffered both in terms of funds and prestige and by re-enforcing the idea that agricultural science should change to conform to a disciplinary standard of excellence.

Under the new norms of scholarship extension faculty are disadvantaged.

• **The Extension Dilemma.** Not surprisingly, extension programs are the first to feel the impact of the declining ability of the land-grant system to provide new practical knowledge for old or new clients. Client needs continue, but the availability of research funding to respond to these needs is limited. It is not surprising then that extension staff are increasingly in conflict with researchers.

The land-grant system has been captured by the professors.

This conflict is often manifested during faculty evaluations. Under the new norms of scholarship, extension faculty are disadvantaged. They are under pressure to produce deliverable programs. These expectations however are geared to the old norms that assume researchers are conducting research helpful in answering problems of clients. On the other hand, administrators are hard pressed to defend work that is considered by peer review and under university-wide policies to be parochial, non-rigorous, or somehow not at the "cutting edge."

The transformation of the system is so complete that today it is often the extension faculty who are considered "out of step" rather than the other way around. The conflicts are so bad that, in some cases, major institutional changes such as separate extension departments or tenure systems have been created to protect extension faculty from the irrelevant standards of the research faculty. Unfortunately such arrangements serve only to further separate researchers from contact with the real-world needs of rural client groups and any external test of the relevance of their scholarship. These compromise arrangements accomplish little in addressing the fundamental land-grant issue: how to influence the research agenda.

Possible Approaches

In the short run there are several approaches that extension can use to overcome the research syndrome. First, extension scholars (including field staff) must seek to more effectively influence the research agenda by defining and describing problem areas where research can make a distinct contribution. Second, extension leaders and scholars must help researchers get published and "famous" among local clients. That can very well lead to state fame and funding, and will likely modify the research view of what is "important to society."

Finally, extension leaders must take a hard line in making the written (and published) word the basis of extension programs. Extension leaders must see to it that extension scholars, too, publish or else the system may perish. Where needed, extension scholars must design and develop materials; they cannot wait for researchers to take the initiative. In some cases, extension scholars may have to do the necessary research themselves—or admit that nothing is available—even at risk of embarrassing the research faculty through this public admission of insufficiency.

The Need for Coalitions

In the longer run there must be major institutional adjustments within the land-grant system to deal with control of the research agenda. These adjustments are not likely to happen voluntarily within the system that was built to provide political access to people who need science applied to their problems. For the system has now been captured by the professors. Increasingly the people who continue need land-grant help, even in

rural areas, are not farmers, though many of them employ farming people. Unless the non-traditional clients can be served by research and extension and their support organized in coalition with agricultural interests, the system may not be able to make the adjustments necessary to continue to serve even traditional audiences.

Put another way, there are three major arenas which influence and control the scholarly agenda of land-grant colleges of agriculture: the national arena of budgetary support; the state arena of budgetary support; and the on-campus arena that articulates the university program. As the power and influence of traditional agricultural audiences in national and state political markets have declined, so have direct budgetary resources for the colleges of agriculture. However, traditional agricultural audiences have been able to retain some control and influence over how the ever-declining pot is used. As a result, college and university leaders find it very difficult to refocus funds to programs and scholarship that serve new, broader audiences. And without "deliverables" to potential clients it will be difficult to gain their support.

The conclusion is clear. Without change, the land-grant colleges of agriculture will find themselves caught in a downward spiral of ever declining political and budgetary support. Faculty will increasingly set their own agenda in response to the highest grant or contract bidder. The land-grant universities will become as bad as Harvard and Yale, producing knowledge fundamentally oriented to special interests rather than broadly based public interests.

The alternative calls for leadership, especially from the traditional agricultural groups. They must act to reverse the spiral by insisting that the colleges of agriculture address issues important to non-farming audiences. They must also work to form political coalitions with these people and groups such as chambers of commerce, small business associations, planning agencies, and associations of local government officials, to increase the funding and control of the scholarly agendas that serve agricultural interests, but also embrace non-farm people and their issues—a broad, non-student, public constituency.

A New Contract

The land-grant university system, asserts Hildreth, is the result of a social contract negotiated and renegotiated between the people of America, the respective states, and the scholars and leaders of the land grant universities. Recent changes in the character of funding and campus governance have made it possible for most academics to opt out of contract renegotiations with impunity. Yet extension staff and faculty with extension appointments are daily reminded by their clients—both old and new—that there is a quid pro quo, that balances are due on old contracts, and that there is a need to renegotiate a new one.

Traditional clients tend to ignore their declining capacity to deliver support when staking their claim to what resources do still exist. Unless they change their strategy—unless they build coalitions with new clients and insist that the new clients be served—the social contract that made these institutions great will simply pass into history.

And at what cost? There will still be universities where the land-grants are now and they may even retain the land-grant designation as a historical curiosity. Their faculty will likely think of them as great centers for higher learning. But like Harvard, Yale, and MIT, they will be sold piecemeal to the highest bidders. They will serve and produce society's new elites, but they will no longer serve those who cannot qualify to sit in their classrooms.

And rural Americans— farm, as well as nonfarm—will be the losers. Just as the judicial system in our society is too important to be left in the hands of judges and lawyers, the universities, particularly the land-grant universities, are too important to be left in the hands of professors. C

FYI...

For More Information About Fiscal Conditions of Rural Counties

In the Fourth 1987 issue of *CHOICES*, Richard J. Reeder wrote about fiscal strains of rural governments. In it he referred to two different surveys that *CHOICES'* readers may want to obtain.

Findings of the survey of counties conducted by the National Association of Counties can be found in an article by Barbara Greene in the Winter 1987 issue of "Intergovernmental Perspectives." Copies cost $3.00 and are available by writing to the Advisory Commission on Intergovernmental Relations, 1111 20th Street, NW, Washington, DC 20575.

For copies of the National League of Cities' March 1987 survey report, write to the National League of Cities, 1301 Pennsylvania Avenue, NW., 6th Floor, Washington, DC, 20004. Ask for "City Fiscal Conditions in 1987." Its price is $17.00 including postage.

Have You Read... *"From Sagebrush to Sage: The Making of a Natural Resource Economist"*?

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Readers will find Dr. Clawson's reflections sobering. For example, he concludes that "External or exogenous forces dominate any natural resource planning and development, and that niceties of analysis, while important, are always subordinate to the external forces." His descriptions of his own personal involvement in controversies attest to another of his conclusions "The social scientist who does relevant research on any subject can expect to be embroiled in controversy."

Paperback copies are available from Anna Publications, 4343 Garfield Street, NW., Washington, DC 20007. The price is $20 postpaid.