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The Land-Grant University in the 21st Century

Michael V. Martin

There are many in political and higher education circles who have come to believe that land-grant universities have lost their relevance. It is said too frequently that the land-grant tradition no longer fits 21st century realities. The purpose of this paper is to argue energetically that land-grant universities, the land grant model, and the land-grant tradition have never been more relevant nor more important.

My argument rests on two observations which may not be fully appreciated by those who question the future of land grants. First, the changing nature of socio-economic needs and education challenges call for a responsive and dynamic university system. Or put another way, we need now, more than ever, non-traditional approaches to higher education. Second, it is the tradition of land-grant universities to be non-traditional. Let me elaborate on this first by briefly reviewing the history of the land-grant movement.

Turner to Today

As far as can be determined, Jonathan Baldwin Turner planted the seed of the idea for what would become the land-grant university. Sometime in the mid-1830s, Turner, a professor from Illinois College (Jacksonville, Illinois), began campaigning for the establishment of state-sponsored universities to serve the "industrial classes." In 1850 Turner proposed a formal plan which contained much of

the language that eventually appeared in the Morrill Act. In 1859, Congressman Justin Morrill and Senator Benjamin Wade co-sponsored a bill in Congress which provided federal assistance to states establishing universities which fit the Turner model. President Buchanan vetoed the Morrill/Wade bill, but three years later, in 1862, Congress again passed the Morrill Act and President Lincoln signed it into law.

The Morrill Act of 1862 represented a profound innovation in higher education for several important reasons. First, it enabled the creation of accessible equalitarian "peoples" universities. Before the Morrill Act American higher education was built on the English elitist model. The Morrill Act reflected the belief that American social and economic development could be best served if higher education were made broadly available to the citizenry.

Second, most colleges and universities of the time were private, church-sponsored institutions. The Morrill Act established a public, federally assisted system. Indeed, President Buchanan justified his 1859 veto on the argument that public universities, if they were to be established, should be solely the responsibility of the states. This non-sectarian approach to higher education was the exception rather than the norm.

Third, Congress chose not to use federal funds but rather federal land as a means to encourage states to accept the land-grant charter. Since cash was in short supply the federal government used what it had in relative abundance. This creative means of encouraging change was also used to settle new lands (the

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Homestead Act) and to draw investment to the transcontinental railroad.

Finally, the land grants were charged by law with promoting "without excluding other scientific and classical studies . . . the liberal and *practical education* of the industrial classes in the several pursuits and professions in life." While the institution of the time focused almost exclusively on philosophy and theology the land grants would focus on broader practical education. This was in keeping with the view that higher education could be a major engine for socio-economic development.

So the very essence of the land-grant movement was, and is, to break with tradition and convention. And this movement did not stop with the Act of 1862.

In 1887, under the Hatch Act, Congress added the charge to conduct research and experimentation in the public interest to the land-grant mission. The Hatch Act, in effect, gave rise to the research universities of today. Moreover, the Hatch Act initiated federal support for research and discovery. This further established the role of government in stimulating economic growth.

In 1890, Congress used the land-grant model to again assert the need to offer education to those left behind. The Second Morrill Act established the system of historically black universities.

The Smith-Lever Act of 1914 directed land grants to take the university to all citizens through the Cooperative Extension Service. Not only did Congress mandate a third mission for land-grant institutions, it also established a new funding arrangement. The extension service is funded through a three-way partnership between the federal, state, and county governments.

In 1994 Congress acted again to provide targeted access to higher education by chartering and funding 29 tribal land-grant colleges. The land-grant system was continually enlarged to ensure that all qualified students have access to a university education. Over the past 139 years, a number of acts of Congress have also broadened the research and extension mission of land-grant institutions.

The central message here is that in so many

ways the land-grant universities have broken with the conventions of the time. The "traditions" of land-grant universities in 2001 are as powerful and relevant as they were when originally conceived. Throughout the evolution of land grants the hallmark has been to pursue the non-traditional. Accessibility, research in the public interest, and connectedness to the citizenry are all vitally important today. Within this context, land-grant universities must strive to break new ground and seek innovative new approaches to serve society.

Challenges of the 21st Century

While the land grant universities remain critical to 21st century higher education they do face several significant challenges. Among these are the following:

It's Not Really a System

Though I, like others, speak of the "land-grant system," it really isn't a system in the functional meaning of the term. We have various types of shared initiatives, regional projects, and national associations, but the institutions remain largely independent and frequently more focused on turf protection than system-oriented program development.

The 1862 land grants have become stratified based on size, state funding and program bandwidth. Project specific consortia are formed and reformed but no overarching system guides institutional innovation. More significantly, linkages between the 1862, 1890 and 1994 land grants are minimal at best. This is a serious constraint in the pursuit of the letter and the spirit of the contemporary land grant "tradition."

To build a true system the 1862 institutions must begin to willingly share programmatic resources and political influence to the 1890 and 1994 institutions. To maximize the impacts of a land-grant system all 105 institutions must be fully engaged. The system must focus on inter-institution collaboration rather than competitiveness.

A Fixation on Inputs—Over Outputs

As land grants have evolved and matured they have, too often, lost sight of their fundamental social responsibilities. In turn, the faculty and administrators have become increasingly fixated on acquiring and controlling inputs too often to the exclusion of serious consideration of socially meaningful outputs. For example, we measure the importance and often the prestige of academic departments by the size of their faculty or their budget and not by the impact of their work. National rankings place emphasis on grants and contracts as an important measure of stature. While not diminishing the importance of grants and contracts, it's the results forthcoming that ought to be our primary focus.

Many land grants, in an effort to be recognized with the elite private institutions, have become increasingly inaccessible to undergraduate students. We tend to base our prestige and, by implication our quality, on the records of the inbound students we admit (GPAs, ACT or SAT scores, honor society memberships, etc.). One might legitimately ask, which is the greater university: one that takes "A" students and turns them into "A+" citizens or the one that accepts "C" students and turns them into "B+" citizens? This is not to suggest that land grants begin to admit unqualified students. Still, educational "value added" is not a bad measure of true institutional impact.¹ The land-grant universities were created as an alternative to the elitist educational institutions and thus should not singularly seek to mimic them.

In this same vein there are a growing number of time- and/or place-bound citizens who can benefit from a land-grant university education. Being true to our tradition of accessibility means creating special degree and life-long learning programs which reach citizens where and when they can learn. To do so,

¹ Some literature exists on measuring value added in education. For example, Tracy, Joseph and Joel Wald Fogel. "The Best Business Schools: A Market Based Approach." *Journal of Business* 70:1(1997) 1–31.

we'll need to take programs off campus and adjust when, where, and how we teach. Our approach should focus on the needs of the learner rather than on the convenience of the institution's bureaucracy or the preferences of the instructor.

Public Distrust of Science

The public, once unconditionally confident in science, now is more skeptical and even distrustful. Some argue that science has not fulfilled promises made. There is the perception that scientists often give vague, contradictory, or conflicting answers to important questions. Moreover, the community of scientists has too often talked down to the general public. In some cases, the costs of conducting science have risen to astronomical levels while the payoffs have been slow in coming. William Proxmire, while he served in the United States Senate (from Wisconsin), would often use his "golden fleece" award to belittle research projects he viewed as frivolous or misguided. As a consequence, there's been a growing reluctance on the part of taxpayers to fund research on an open ended, unrestricted basis.²

Land grants will need to lead the way in redefining and renegotiating the social contract on science and in reeducating the citizenry with respect to the benefits of public support for research and discovery.

Mission Creep and Partnerships

In recent years, other public agencies and private firms have moved into areas that were once exclusively the providence of land grant universities. Many state departments of agriculture now provide the equivalent of extension programs. Other such agencies have entered the applied research business. Likewise, private sector research and technology transfer now occupies some of the territory previously controlled by land-grant universities.

The standard reaction by land grant leaders,

² This mistrust exists despite research showing phenomenal rates of return on past research, particularly in the area of agricultural research.

individually and collectively, has been to oppose or resist "mission creep" by other public organizations. The response to the private sector research has been more ambivalent. In some cases, it has been denigrated, in others embraced, and in still other cases, ignored.

It's clear that land grants must rediscover their "comparative advantage" and use it as the basis for determining programmatic and partnership priorities. The land grants must ask and answer the three questions: (1) what can we do best in light of 21st century realities? (2) how do we create partnerships and collaborative arrangements (public-public, public-private) which maximize efficiencies while fully protecting our public responsibilities? and (3) how do we persuade the general public that investments in land-grant universities hold payoffs worth accruing?

New Fiscal Realities

Where once taxpayers readily supported education at all levels, it now appears that there is rising resistance to open-ended, flexible funding. In many states, appropriations to public universities have remained flat or even declined in real terms. Where state or federal funding has increased it has often been directed towards specific projects (earmarks) or provided in the form of "competitive" grant programs.

Our ability to pursue pure discovery oriented research or political unpopular outreach programs appears to be even more limited. The literature already indicates that social and economic rates of return to land-grant research and education programs are significant. Thus we need to continually find new ways to acquire, free up or leverage the dollars available. As noted above, this situation calls out for new partnerships and new approaches to maximiz-

ing the impacts of public investments in land-grant universities.

Along with renewed attention on multidisciplinary, multi-institutional research we need to forge a similar arrangement for extension. Likewise, shared teaching programs across universities will have to become the rule rather than the exception. For degree programs which are important, but do not draw large numbers at any single institution, the use of distance education, tuition reciprocity and common curriculum can encourage shared programs and shared students.

Conclusion

The land-grant mission and the land grant tradition is as relevant in 2001 as it was in 1862. However, the mission, intended to be dynamic and responsive, must be adapted to the challenges and realities of the years and decades ahead. The tradition of being non-traditional must be reemphasized and inserted into this 21st century context.

The fundamental land grant principles of accessibility, practical as well as classical education, research and discovery in the public interest, and connectedness to all the people remain powerful and profound. Everyone associated with land-grant universities must reembrace these principles but do so as part of a commitment to excellence and social responsiveness.

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