

Economic development and a liberal education

2008-03-28

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By Yue-Ting Lee

Special to Toledo Free Press

news@toledofreepress.com

Higher education has changed so much that today's educational institutes are not just limited to such traditional responsibilities as teaching, learning, research and academic services. Almost all institutions are situated in a community; their students are from communities near or far, and colleges and universities are, to a certain degree, obligated to help and support community and economic development.

Liberal arts and sciences education, which is the core of any big research university, is no exception. What do we mean by liberal education? According to the Association of American Colleges and Universities, liberal education is “a philosophy of education that empowers individuals with broad knowledge and transferable skills, and a strong sense of value, ethics, and civic engagement” (see the Web site www.aacu.org).

By its nature, liberal education is global and pluralistic. It embraces the diversity of ideas and experiences that characterize the social, natural and intellectual world. To acknowledge such diversity in all its forms is both an intellectual commitment and a social responsibility, for nothing less will equip us to understand our world and to pursue fruitful lives. In other words, well-rounded liberal learning requires that we help our students holistically: (1) to understand the foundations of knowledge and inquiry about nature, culture and society; (2) to master intellectual and practical skills (e.g., core skills of perception, analysis, and expression or communication skills, critical thinking skills and creativity); (3) to cultivate a respect for truth and to explore connections among formal learning, citizenship, and service to our communities, and (4) to integrate and apply knowledge, skills and values to the real world.

More specifically, characterized by challenging encounters with important issues, a liberal education prepares graduates for socially valued work and for civic leadership in their society. It usually includes a general education curriculum that provides broad exposure to multiple disciplines and ways of knowing, along with more in-depth study in at least one field or area of concentration (see www.aacu.org).

Recently, Steve Weathers, President and CEO of the Regional Growth Partnership in Northwest

Ohio, outlined 10 principles for economic and community development (Toledo Free Press, March 23). Almost all of these ten principles have much to do with the delivery of a well-rounded and holistic liberal education in our College of Arts and Sciences at UT. Our college faculty and students (especially graduate students) can participate in creating the vision for community development and in developing strategic planning for their communities in and around Toledo. Definitely our departments and programs such as (environment sciences, geography and planning, economics, public administration) help to build a sustainable environment.

By working with public, private and academic settings, our science faculty members at the college have been developing solar energy — or photovoltaics — which is nationally recognized by Newsweek, Wall Street Journal, and The Economist. With the support from the university's research office and the Regional Growth Partnership, Xunming Deng in the department of physics and astronomy founded and developed the Xunlight Corporation out of his scientific research and innovation. Recently (in March 2008) Xunming Deng, Robert Collins and Al Compaan and several other faculty members received \$2.6 million for solar energy research from the U.S. Department of Energy.

With respect to other principles on economic and community development, Weathers also pointed out that we should value history, arts and culture by supporting a variety of public art, and prepare for a global environment by insisting on a world-class science, technology and communication infrastructure.

Obviously, our departments in arts and humanities deal with history, culture and arts, and the departments of our natural sciences departments (e.g., biology, chemistry, environmental sciences, physics and astronomy), social or behavioral sciences, math and statistics and language program help to prepare for a global environment by providing cutting edge research and international languages education and prepare for leadership of the next generation.

Many colleges and universities in America are embracing economic development as a central mission. Recently in the Chronicle of Higher Education (Feb. 29), Leslie Boney, associate vice president of economic development research, policy and planning at the University of North Carolina system, strongly advocated a blending of liberal education with economic development. According to him, as more and more universities in more and more nations produce really well-educated people, and the world becomes, if not flat, at least more spiky than it used to be, a blended model seems to make more sense, one that more than ever hammers away at producing nimble, critical thinkers who can make connections between and among disciplines and ideas and makes sure that those thinkers are not unaware of the realities of the world into which they are graduating.

Boney also pointed out that it is the same for scholarship. We've gotten really good at producing

wonderful discipline-specific gurus, and we need to continue doing that. But we also need in academics more multilingual, discipline-connecting folks who can raise up the next generation of lateral thinkers — the ones who are going to invent us out of the economic box we are in.

As for the College of Arts and Sciences at UT, first of all, we must continue to strategically focus on applied scientific research, including the translation of applied scientific research into commercial reality in support of economic development, such as alternative energy or photovoltaics or energy sustainability, biotechnology and biochemistry, research on cancer or other diseases, and behavioral medicine, environmental impact on health, and environmental sustainability (e.g., Lake Erie research), astrophysics and geographic information systems.

Consistent with liberal education, we must also promote general education (i.e., the core curriculum) and interdisciplinary research, learning and program development or enhancement — e.g., programs such as in neuroscience, health/forensic psychology, environmental studies, structural biochemistry, spatially integrated social sciences, master of liberal studies, global and diversity studies, law and social thought, and we will enhance the quality and efficiency of general education (GE) or the core curriculum involving sciences/math and almost all other departments.

In brief, a well-rounded and holistic liberal education will help to promote community and economic development, and is in support of those principles of community and economic development outlined by Weathers. Our liberal arts education will only become stronger, better and more dynamic by working with private businesses, public sectors, and local and global communities.

Yue-Ting Lee is dean and professor of the UT College of Arts and Sciences. He may be contacted at yt.lee@utoledo.edu.