

imes of economic stress bring renewed scrutiny of higher education, particularly liberal arts education. Misconceptions and sound bites gain traction: If Bill Gates and Steve Jobs never earned degrees, is college really necessary? Why should taxpayers foot the bill for "pointless" departments like anthropology?

Yet, judging the value of a liberal arts education, even with a purely economic calculus, shows it to be more relevant than ever before.

It is no longer news that career trajectories are varied and multiple; that our professional pursuits have distinct chapters over the course of our lives; and that, especially for women, the ability to step off and back on the career track during childbearing years is critical to advancement. Flexibility, creativity, critical thinking, and strong communication skills (particularly writing) are at the core of liberal arts education and critical to success today and in the future. It's not surprising that a recent survey by the Association of American Colleges and Universities shows that more than three-quarters of employers would recommend an education with this emphasis to a young person they know.

The challenges our graduates will face are more global than ever. Any judgment of value we place on a liberal arts education must take into account the new reality of the "flat" world.

Even in 1949, when Eleanor Roosevelt spoke at Smith, she anticipated the challenge: "How well prepared are we to live in a world that has constantly grown smaller and where we must rub shoulders with people of different cultures, of completely different customs and habits and religions, who live under different legal systems, whose languages are different?"

Today, the skills of liberal arts graduates are in increasing demand around the world. Surveys in China and Japan, cultures long held as supporting regimented learning, have begun to show that employers there are complaining about the inflexibility of a workforce educated without a focus on creativity or problem solving. Facing the same pressures of internationalization and innovation that have generated increased scrutiny of educational styles in the United States, universities in Asia are adapting liberal arts education as an economic necessity. A recent article in The Chronicle of Higher Education quotes a researcher for the Japanese National Institute for Policy Research: "People know their own field, but once they're outside it, they don't know where to start."

Another erroneous construct pits the liberal arts against the STEM fields. Rick Scott, the governor of Florida, said that in place of liberal arts, "I want to

spend our dollars giving people science, technology, engineering, math degrees...So when they get out of school, they can get a job." Yet, proportionately, graduates of liberal arts colleges earn doctorates in the sciences at nearly twice the rate of graduates of other institutions. According to a study from Nobel laureate Thomas R. Cech, who is now president of Howard Hughes Medical Institute and a distinguished chemistry and biochemistry professor at the University of Colorado Boulder, even though only 3 percent of college graduates received their education at liberal arts colleges, roughly 20 percent of scientists elected into the National Academy of Sciences in a recent two-year span come from liberal arts institutions.

This should not come as a surprise. The humanities are important to the sciences not because they produce more cultured people, but because they produce better scientists. Cech argues that "just as mathematics is considered to be a good exercise for the brain even for those who will never use calculus in the future, so the study of great books, history, languages, music, and many other non-science fields is likely to hone a scientist's ability to perceive and interpret the natural world."

A liberal arts education often presents students with contradictory opinions from different viewpoints, forcing an in-depth examination and critical distillation of data; I can think of no skill more important for scientists and engineers. Cech reminds us that "scientists need the same skills as humanists to cut through misleading observations and arrive at a defensible interpretation."

Of course, this is a two-way street; one could easily make the same argument as Cech does in reverse: that cross-training in the sciences produces better humanists. This has led to major investments by liberal arts colleges in STEM fields; a handful of liberal arts colleges—Smith among them—have launched engineering programs. I look forward to company in that field.

Facing global competitiveness and a rapidly changing market, it is right to examine the relevance and process of our educational system. But it would be a mistake to find irrelevant a system that has proven so disproportionally successful that its methods are being adopted by some of America's strongest economic competitors.