



Robert Kennedy, former president of the University of Maine

Higher education must make tough decisions to improve preparation of the workforce

A Civic Caucus Focus on Human Capital Interview

January 23, 2015

Present

John Adams, Dave Broden (vice chair), Pat Davies, Paul Gilje (executive director), Randy Johnson, Sallie Kemper (associate director), Robert Kennedy, Dan Loritz (chair), Paul Ostrow, Dana Schroeder (associate director), Clarence Shallbetter, Fred Zimmerman.

Summary

Higher education consultant Robert Kennedy is emphatic that visionary leadership and a willingness to change and make tough decisions characterize the universities and states leading in innovation and at the cutting edge of economic development. Those factors are key to any attempts to improve Minnesota's postsecondary system and refocus its efforts toward maintaining and bettering the quality of the state's workforce.

He notes that land-grant universities were created to focus on technology development, economic development and job creation to help the middle class. They were to provide a liberal, but practical, education to the members of the working classes. But, Kennedy points out, over the past 20 years, in all colleges and universities, and particularly in the community colleges, there has been an emphasis on reducing technical education in favor of the sciences and liberal arts.

He states that one of the biggest errors in higher education is losing the distinction between the technical colleges and the community colleges. He says it's not necessary to undo the merger of community colleges and technical colleges in Minnesota, but we must recognize that the pendulum has swung too far away from technical education. He suggests that the schools would have a more technically oriented curriculum if they were funded to do that. He recommends putting someone in charge of recreating technical education in Minnesota.

He calls on business and industry to reach out to the leaders of the Minnesota State Colleges and Universities (MnSCU) system and the University of Minnesota. By doing that, he believes business could have a great influence on shaping some of the state's postsecondary training programs. He also calls for more emphasis on improving the K-12 education system.

Biography

Robert Kennedy is a postsecondary education consultant and former leader of postsecondary institutions in several states. He was born and raised in west-central Minnesota and currently lives in Baxter, Minn.

He was founding president of the Connecticut Board of Regents for Higher Education and CEO of Connecticut State Colleges and Universities (ConnSCU) from September 2011 to 2012. He was president of the University of Maine from 2004 to June 30, 2011, and currently is president emeritus. From 2000 to 2004, he was executive vice president and provost of the University of Maine.

From 1992 to 2000, Kennedy was vice president at Texas A&M University and from 1989 to 1992, he was vice president at the University of Maryland. Previous positions included the National Science Foundation, University of Iowa, Washington State University and The Ohio State University.

He earned a bachelor's degree in plant science in 1968 from the University of Minnesota and a Ph.D. in Botany in 1974 from the University of California, Berkeley.

Background

Since the Civic Caucus released its **statement on human capital** in September 2014, it has concentrated on learning more about the challenges of maintaining a strong workforce in Minnesota in the coming years. The Civic Caucus interviewed Robert Kennedy to get his perspective on changes needed in postsecondary education to adequately prepare and train students to fill the current and future jobs that will keep Minnesota's economy competitive in the years to come.

Note: Kennedy clarified during the discussion that he used the term "community colleges" to refer to both traditionally more academically oriented junior colleges and more practically oriented technical colleges.

Discussion

President Abraham Lincoln signed the law creating the land-grant university system in 1862. Higher education consultant Robert Kennedy called it a "visionary moment" and pointed out that his own career experience has been largely at land-grant universities. From the beginning, he said, the land-grant universities were to focus on technology development, economic development and job creation to help the middle class.

Note: A **land-grant college or university** is an institution that has been designated by its state legislature or Congress to receive the benefits of the Morrill Acts of 1862 and 1890. The original mission of these institutions, as set forth in the first Morrill Act, was to teach agriculture, military tactics and the mechanic arts, as well as classical studies, so members of the working classes could obtain a

liberal, practical education. Under the 1862 act, each eligible state received a total of 30,000 acres of federal land, either within or contiguous to its boundaries, for each member of Congress the state had as of the census of 1860. The land, or the proceeds from its sale, was to be used toward establishing and funding the land-grant institutions.

There is at least one land-grant institution in every state and territory of the United States, as well as the District of Columbia. Most land-grant universities are large public institutions, but there are several private land-grant institutions, as well, including MIT, Cornell University and the University of Delaware. Under the original law, states were expected to contribute to the maintenance of their land-grant institutions, as well as to provide their buildings. In addition to the income from the original land grants, as of 2012, the appropriations of federal funds to aid the states in the maintenance of land-grant institutions amount to more than \$550 million annually. The institutions also receive additional federal research funding.

Approximately eighty percent of all patents given in the U.S. have their basis in land-grant university research. "Those institutions do a great job of practical research," Kennedy said. He noted that universities and colleges are often thought of as economic engines. Citing MIT, a land-grant university, as an example, he said the school's graduates have started 7,000 companies with worldwide sales of \$164 billion in Massachusetts alone and 4,100 companies with about \$134 billion in worldwide sales in California. "MIT is the gold standard for return on investment from an economic and educational standpoint," he said.

As president of the University of Maine from 2004 to 2011, Kennedy said he tried to emphasize the job and economic development potential of the University, in line with the land-grant mission.

Over the past 20 years, in all colleges and universities and particularly in the community colleges, there has been an emphasis on a reduction in technical education in favor of the sciences and liberal arts. Kennedy said this trend has resulted from social pressure within the country as a whole, students' choices of major and parental involvement. "There are a lot of things coming together to de-emphasize technical training at colleges and universities," he said. "Academics spend a lot of time debating training *versus* education," he added. "Some are highly offended if you refer to what they're doing as training."

Most students preparing for a career need help choosing their educational and career paths at both the secondary and postsecondary level, he said. However, at community colleges, some guidance counselors have up to 1,000 students they're counseling. He pointed out that Minnesota Gov. Mark Dayton is stressing the need for more guidance counselors. "They can be extremely important in terms of a student's career," Kennedy said.

There is a lack of cooperation throughout higher education at all levels and all institutions. "Essentially colleges are in competition with one another," Kennedy said. "They rarely cooperate or share resources. That lack of cooperation is the biggest sin in higher education, because it drives up the cost. It's just not taking advantage of the efficiencies and the expertise that universities have. Everybody tries to do everything."

Funding has a lot to do with it, he said, because the colleges are funded independently and each institution wants the biggest share it can possibly get. "There's a perception that if they're seen as cooperating, their funding will decrease," he said. "It's very, very inefficient."

But, Kennedy said, funding agencies and university systems like cooperation. They want to reward it. Executive and board decisions made around university systems should stress cooperation, he said.

One of the best trends in higher education is a reduction in the redundancy in course offerings, although it doesn't happen very often. When Kennedy was working at Texas A&M University, it started accepting all credits from a nearby community college. This reduced the course redundancy and helped speed students through the system and out into the job market. But, he said, his experience with community colleges in other places is that there still is not much cooperation.

Another hopeful area of cooperation is awarding high school students credit for college courses. Kennedy said a study at the University of Maine showed that students who have taken college courses in high school do better in college than those who do not. Also, taking college courses in high school will speed students to a degree and get them into the workforce sooner. "It's not a four-year degree anymore," he said. "The average student takes 4.7 or 4.8 years to get a degree. Part of the delay is due to students' indecision about what to major in." He said that speaks to the importance of guidance counselors.

It's important to put students' creativity to work. Kennedy said that as part of the University of Maine's effort to stress innovation and economic development, it started a Student Innovation Center. He said the center was very successful and was responsible for starting four to six companies every year. He noted that the University was consistently in the top 10 universities nationally for the economic development impact of its research.

Effective in 1995, Minnesota consolidated its seven state universities, 34 technical colleges and 21 community colleges to form the Minnesota State Colleges and Universities (MnSCU) system. Kennedy said that about three years ago, Connecticut used the MnSCU model to create the Connecticut State Colleges and Universities (ConnSCU) system. From 2011 to 2012, Kennedy served as chancellor of ConnSCU, which includes the state's four universities, 12 community colleges and Charter Oak State College. ConnSCU developed an agreement that all courses would transfer within the system. Then the University of Connecticut and the state's private colleges all entered into the agreement, as well.

Kennedy pointed out that postsecondary students, on average, will have four different colleges on their transcript when they complete their degree. If a course doesn't transfer from one school to another, the student and the parents have lost time and money.

In response to an interviewer's question, Kennedy said up to 83 percent of the students in Connecticut's community colleges require remedial education. At the state universities, probably 20 to 30 percent of the students need remedial classes.

Visionary leadership and a willingness to take a chance and make tough decisions characterize the universities and states leading in innovation and at the cutting edge of

economic development. Kennedy said that visionary leadership is evident at the level of the CEO, the board and/or the state's executive level.

One of the biggest errors in higher education is losing the distinction between the technical colleges and the community colleges. Kennedy said in 2004, Maine Gov. John Baldacci eliminated the technical colleges and merged them into one community college system. "Once they're community colleges," Kennedy said, "there's a tendency to move toward more liberal arts courses."

Funding of community colleges/technical schools should be more technically and practically oriented. Kennedy said the schools would have a technically oriented curriculum if they were funded that way. He believes strongly in the use of industrial advisory boards or user groups to keep the institutions more on task. "Business groups can have a big influence in making sure that technical aspect is not overlooked," he said.

Land-grant universities have been disproportionately successful in developing technology, but they are ill equipped to deal with the educational achievement gap. A disproportionate number of graduates in any state come from land-grant universities, Kennedy said, but the schools don't deal successfully with the achievement gap, which is one of the biggest issues facing us as a country. Responding to a question about resolving income inequality, Kennedy said that land-grant universities continue to stress the technology and knowledge economy, which won't help bring the two ends of the income spectrum together.

The sophisticated manufacturers in Connecticut rely more on on-the-job training to train their employees than on universities or technical schools. However, about four years ago, the Connecticut Legislature provided \$11 million to ConnSCU to start four manufacturing centers across the state, Kennedy noted. Those centers helped turn out lots of graduates in advanced manufacturing. "Industry was clamoring for these people," he said. An industry advisory council helped create the curriculum. "ConnSCU still can't produce enough for the needs of the state, but the centers made a big impact," he said.

There's a big disparity in the perception of public education in the Midwest and the West Coast versus the East Coast . An interviewer asked what impact the large private research universities in the Northeast that get generous support from the private sector have on the public higher education system. In Minnesota, Kennedy said, the preeminent university is a public institution, but in the East, no one wants to go to a public university. "But the private universities in the East aren't terribly applied, other than MIT," he said.

It's not necessary to undo the merger of community colleges and technical colleges in Minnesota or Connecticut, but the pendulum has certainly swung too far away from technical education. "I'd go back to the funding," Kennedy said. "By providing funding in certain areas, it could really sway the direction students and colleges take. I would hope businesses and industries could have a big influence in suggesting ways that money could be spent. There definitely needs to be more of a practical orientation."

The most important factor is visionary leadership and a willingness to make tough decisions.

"I don't see that happening," Kennedy said. "The chancellor of MnSCU, through the board, could be influenced enormously on what the proper balance is between practical or applied education and a liberal arts curriculum in the technical and community colleges."

There's a crisis right now in having people properly trained for the jobs that are available.

"I would put somebody in charge of technical education," Kennedy said, "who is specifically charged with recreating technical education in Minnesota." He said a mechanism could be created to bring people together to meet businesses' needs.

"I'm a little bit critical of the University of Minnesota (U of M) for not stressing practical or technical education," he added. "They've got to do that. We can't let them off the hook." But an interviewer asked why the University should do what technical colleges are mandated to do.

Looking back at the decision to merge the state universities, the community colleges and the technical colleges to create MnSCU, a different decision would probably have been better.

An interviewer pointed out that we could have just merged the state universities and the community colleges and left the technical colleges separate. Or, he said, we could have made the state universities part of the University of Minnesota system.

Interviewer: Only 15 percent of U.S. college graduates earn degrees in science, technology, engineering and math (STEM) fields. In comparison, the interviewer said, STEM graduates make up 28 percent of college graduates in Germany, 22 percent in England and 38 percent in Korea. And the school year in Korea is 240 days per year, he added. He noted that probably the best manufacturing school in the world is Nanyang Technological University in Singapore. "Will people continue to come to the U.S. for higher education when costs escalate?" he asked. "There are lots of smart people in other places."

Kennedy responded there is a big expansion of engineering schools in China. He lamented the fact that there are lots of students coming out of the K-12 system in the U.S. who are ill-prepared for postsecondary engineering programs.

Universities are the most "siloe" institutions that have ever existed. An interviewer commented that the major rewards for university professors are found in the silos of the field in which they're teaching and researching. Kennedy responded that Texas A&M University offered interdisciplinary research grants to get different people to work together. "It takes very little money to lead faculty members someplace," he said. It's important to get faculty to work across institutions.

If business groups would meet with the leaders of the U of M or MnSCU, they could have a great influence on shaping some of the postsecondary training programs. "Business is not active enough in doing that," Kennedy said. "And that's how decisions are made." He said business should do the reaching out, since the institutions themselves won't necessarily do that. "There's an opportunity for so much more," he said. "There's an enormous gap and an opportunity to collaborate much more."

Interviewer: Making change in the postsecondary system requires someone with the political authority to lead people. The interviewer believes there must be an overarching authority to hold the system accountable and asked Kennedy whether he agrees that we need a structure that allows political leaders to take charge.

Kennedy responded that most states have a Higher Education Coordinating Board (HECB), but the boards haven't worked, perhaps because they haven't had enough authority. (According to the Minnesota Office of Higher Education, Minnesota's HECB became the Higher Education Services Office in 1995. The current state Office of Higher Education replaced that agency in 2005.)

Interviewer: Business seems far more risk averse than ever and because of that, does not want to invest in the development of its human capital. The interviewer stated that business is asking the public to take the risk of investing in the training of its workers, while also saying business taxes are too high. "There is a disconnect there," she said. She also worries that business wants students to be narrowly trained to be workers suited to their particular business operations, rather than to receive a broader education which would offer more opportunities.

Another interviewer commented that there is a huge variance in companies and that some are willing to make the investment in training. He stated that across-the-board policy initiatives treating all companies the same might not produce the same results.

Kennedy responded that MIT, for example, is enormously successful in generating entrepreneurship and technical expertise, but also requires all students to pursue a well-rounded education. "You really need that combination," he said.

Interviewer: We have several intersecting things all happening at the same time: what kids want to do and what they're encouraged to do, what the state needs, what schools are willing to do and what companies want. "We have institutions in place that prohibit or encourage different things," the interviewer continued. "Culture is very important here. We don't value your kid becoming a \$100,000-a-year plumber. We value them majoring in psychology and becoming a taxi driver and living in the basement. What's wrong with this picture? We don't expect much of our kids in high school and then we complain about kids not being prepared as citizens, employees or healthy adults. We never taught them how to grow up and how to think."

Kennedy responded that a lot of emphasis must be put on K-12 education. To help improve the K-12 system, he believes we need to look at the curriculum very carefully. "That's part of the basis for the inadequacies," Kennedy said. "For example, it's a shame students are coming out of high school and college not literate in computer skills."

Conclusion

The state needs visionary leadership and a willingness to change. "Visionary leadership may be more common than the willingness to change," Kennedy said. "But we have to change."