

Also, while students are more computer literate than their parents in the ability to use today's technology of cell phones, PDAs and computer devices, they are not learning how to apply the skills in their profession to solve problems. Universities can do more to integrate the innovative use of technology with pedagogy. A great example of this is the videogame that the Economics Department has developed as a platform for students to learn and apply the principles of microeconomics.

Lastly, how many colleges or universities do you know that require all their graduates to be fluent in multiple languages? Not many, I would bet. Other nations do for their citizens. The Chinese government requires fluency in three languages: Mandarin Chinese, the language mandated as the "common" language for China; English, the business language of the global economy; and mathematics, the language of all sciences. A similar approach is needed here to ensure that university graduates can be successful in the 21st century.

**Q. How does K-12 public education fit into this equation?**

**A.** K-12 public education is the primary input to this equation or

value proposition. More specifically, K-12 education is the input to higher education. Without high quality input, there has to be tight and extensive quality control and inspection followed by extensive and time consuming rework. Much of what higher education does in math and English in freshman years is remedial because these students are coming to colleges and universities prepared to do only remedial work. We have got to fix K-12 public education, but to do that I think we will have to first acknowledge, as Bill Gates has said, that it is broken and must be blown apart and reinvented.

**Q. What's the appropriate role for public policy?**

**A.** Public funding is always accompanied by public policy, whether intentional or unintentional. We have seen this with the "Leave No Child Behind" program for K-12 public education, with its accountability standards and improvement mandates and programs, supported by legal reviews and legislation. Higher education should expect the same if it does not deal with its issues of access, affordability, and accountability. The recent Spelling Commission Report is a harbinger of things to come. To address these challenges, I believe higher education and businesses need to work together.

Bryan Forum is published by the Bryan School of Business and Economics at The University of North Carolina at Greensboro. We hope you find this issue of interest. We invite you to participate by providing comments on this issue or providing suggestions on topics for future issues by contacting the editor.

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## Microsoft VP Connects to UNCG

Robert L. McDowell, vice president of Information Worker Business Value at Microsoft Corporation, has over 35 years of experience in the information technology industry. He joined Microsoft in 1990, when the fledgling company had fewer than 3,000 employees, and is part of the leadership team that transformed the company to the global giant it is today with over 72,000 employees throughout the world. McDowell established Microsoft Consulting Services and led the Enterprise Customer Unit, developing strategies for selling and marketing Microsoft's technology and services to its largest corporate customers. He has been in his current role since 2002, helping customers maximize their use of current Microsoft technologies in ways that significantly add business value to their organizations.

McDowell is the author of several articles on the impact of information technology on business and is the author of two books, *Driving Digital* and *In Search of Business Value: Ensuring a Return on Your Technology Investment*.

A graduate of the Virginia Military Institute (B.A., Economics) and Boston University (M.B.A.), McDowell has served on the board of directors of Visio Corp, Entevo Corp, and the Virginia Military Institute Foundation. He currently serves on the Board of Visitors of the Virginia Military Institute and The University of North Carolina at Greensboro, and on the International Advisory Board of Scottish Enterprise. He lives in Friday Harbor, Washington, with his wife, Lissa, a 1968 graduate of UNCG.



# BRYAN FORUM

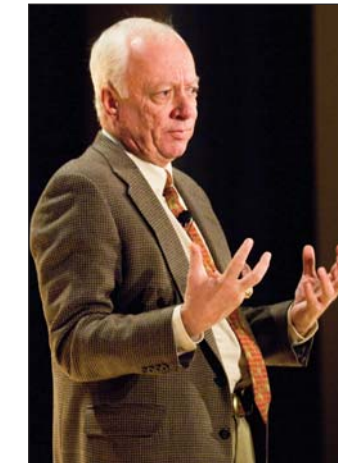
## What Should Business and Higher Education Expect of Each Other?

"Economic development" has become a catch phrase around the country, as regions struggle to cope with the structural transformation of the American economy. The twin forces of innovation and globalization are creating new economic pressures and new competitors. Amid this transformation, many communities have rediscovered an important economic asset: their colleges and universities.

Institutions of higher education serve their communities in numerous ways, from targeted research and internship programs to their basic function of educating the work force for the New Economy. Bridging the gap between the culture of academics and the world of business is neither easy nor automatic. But it can be done.

In October UNCG held its first Corporate Expo, attended by approximately 100 business and other community leaders from around the state. The keynote speaker for the event was Robert McDowell, vice president for Information Worker Business Value at Microsoft Corporation. Mr. McDowell was clear about the "disconnect" between business and higher education, and he urged America's universities to pay more attention to its role as the economy's manufacturer of skilled workers.

The Bryan Forum talked to Mr. McDowell about the nexus of business and higher education in the U.S. economy.



Robert McDowell, Microsoft VP, speaks to an audience from UNCG and the business community at October's Corporate Expo.

**Q. The title of your talk at the Corporate Expo was "What Should Business and Higher Education Expect of Each Other?" Why has this question become so important?**

**A.** Because, as Tom Friedman has said, "the world is getting flatter." Global competition is a reality today and such competition will only increase in the future. The competition is no longer just one company competing with another but also countries competing with

countries, states competing with states, and even regions competing with regions. To be successful in this kind of environment there must be a close link between the business community and the higher-education community. Business is the ultimate buyer of the education product. Business needs to be clear about the kind of product it wants and needs to play a stronger role in the definition of the content of higher education's curriculum.

**Q. Are we in a crisis?**

**A.** I don't believe that the sky is falling, that higher education in America is a mess, because it's not true. The higher-education system in the U.S. is still the world's best, as is the business community in the United States. My point is that one of the risks we face is that our backs aren't against the wall. We don't realize how serious our challenges really are. We've been in a pretty good position for a while and it's now ours to lose if we don't make some changes. Today, China produces nearly four times as many engineers as we do, but the quality isn't the same...yet. But in 20 years, their economy will be larger than ours.

## UNCG's Economic Development Council

Excerpted from an article in the 10/2/06 edition of the *Business Journal of the Triad* (336-271-6539):

UNC Greensboro has created a formal Economic Development Council in an effort to improve the way it generates regional economic development activities and coordinates projects once they are under way. The council has about 20 members from across the campus who will meet monthly to talk about how the university is or should be enmeshed in the broad scope of economic development, according to Rosemary Wander, UNCG's associate provost for research and public/private partnerships and chair of the new committee.

Economic development has been a goal for UNC System schools for years, but Wander said UNCG's many efforts on that front in the past have been widely dispersed and often not recognized as economic development at all. The UNC Board of Governors has a fairly broad definition of "economic development" for its campuses, including activities ranging from leadership development to technology transfer to public policy analysis, among others.

The campuswide effort is an extension of the strategic planning process under way at UNCG's business school, according to Jim Weeks, dean of the Bryan School of Business and Economics. In 2005, the Bryan School began working on a report, outlining strategies for improving its own economic development activities, and Weeks said that effort was expanded when new UNC President Erskine Bowles made clear early in his administration that every campus would be required to make economic development a bigger priority.

Both Wander and Weeks said it's too early to say what specific projects or actions might come out of the new council. Weeks said that, in general, the Bryan School will be sharpening its focus on entrepreneurship through a grant application to the Kauffman Foundation as well as the hiring of a senior faculty member. He has also hired Tom May, formerly the president of the Nussbaum Center for Entrepreneurship, a business incubator in Greensboro, as his assistant to the dean for economic development.

### Q. Is it all about skills?

A. Of course. Anyone who doubts it should read the October 7 issue of *The Economist*. The cover story is "The Search for Talent: Why it's getting so hard to find." The product of the education system is not meeting the needs of the business community today. The article makes the same point that I do, that business and higher education in the United States face a challenge. And what's worse, this is not a frequent discussion between business and higher education. But the discussion has to be had and it has to be candid. There has to be a change in the relationship that has existed between business and higher education up to now.

### Q. How is this reflected in the information-technology industry?

A. My company, Microsoft, has grown dramatically, but our entire industry is booming—we can't find enough people. And yet I talk with new college graduates who have been told by adults that there's less need for IT professionals because of the dot-com implosion in 1999 and 2000. Are we on different planets or something? There's a wild disconnect between what our industry needs and what's being produced.

### Q. What could happen as a result?

A. At Microsoft we bring in at least 2000 new employees out of school as fresh graduates every year, on top of all the hiring we do for positions that require more experience. But we can't find enough talent. Some in the press say it's about the industry wanting to pay for cheap labor. That's just wrong. We're not looking for cheap talent—we're looking for talent. But we can't find enough people coming out of the U.S. education system with the skills we need. And it's not just technical skills. We're looking for employees who can operate in an international setting, people who can think outside the box, who can communicate effectively. We don't just hire programmers; we hire a lot of sales and marketing people. But there isn't enough talent produced here and so we have to go off-shore. We have to go where the talent is. We have no choice.

### Q. What kinds of opportunities do you see for business-university partnerships?

A. There are so many. Still using Microsoft as an example, we're very interested in doing and funding joint research with universities. We look for the best talent, and we look for institutions that are focused on topics of interest to us. We've invested in an extensive internship program to cultivate and identify talented people. But more broadly, if the United States is to compete in the global economy, higher education has to understand that it's a manufacturing plant that produces a product that business buys. I'm not saying that this is the total relationship between higher education and business, but it's the guts of the challenge we face.

### Q. How would you characterize businesses' ability to "spec out" what they need from universities?

A. Uneven. Some firms and some industries, such as ours and others in the knowledge economy, know what they want and are very clear about what universities need to be producing or what knowledge, skills, and attitudes graduates should have. I think some of the "old economy" firms and industries are less clear about what they need because they are going through dramatic economic transformations. However, I don't believe any graduate from a quality higher-education institution should graduate without strong communication skills, technology literacy, and fluency in multiple languages.

### Q. Are universities sufficiently responsive in meeting businesses' needs?

A. They're glacially slow. There is a producers' mentality on most campuses and in most systems of higher education. As a result, the higher-education culture, structure, processes, and rewards systems are built to insulate them from responding to society's or industries' needs. Even those that are trying to be responsive are having to develop processes

and programs to learn what businesses need and to become more customer driven. This is a huge paradigm shift and I applaud the UNC system and UNCG for its recent economic-development initiatives, such as the Corporate Expo. I encourage the university to continue these kinds of events.

### Q. As you know, the faculty determines the curriculum offered in a university. What role do you see business playing in designing the curriculum?

A. Business has to be the voice of the customer. As I said, universities are the



McDowell enjoyed some networking time with students at the *Schmoorza Palooza*, an annual event that gives students the opportunity to practice networking skills.

producers of what business needs. How can they produce what is needed if the customer, businesses, are not involved in that process? Industry has learned how to do this very well and could teach universities how to be more effective, more efficient, and more responsive in designing and redesigning relevant curricula. I'm not suggesting that business should tell the university what should be in the general-education or liberal-arts curriculum. But I am arguing that in many of the professional, scientific, and engineering fields, industry is leading universities, and higher education would benefit by involving business in the design and delivery processes in those cases.

### Q. What are the barriers to getting businesses and universities to work collaboratively on curriculum, joint research, and new ventures?

A. There are barriers on both sides. First, businesses need to be clear about what their

needs are, and to do it in sufficient detail for higher-education institutions to respond effectively. Businesses may also have to provide more targeted funding for targeted research areas such as what we do at Microsoft. We funded \$7.6 billion in research and development last year that provided funding for many faculty in higher education. On the other side of the equation, higher-education institutions need to reinvent themselves to partner with businesses to produce students who can hit the ground running when they graduate, to conduct applied research, and to commercialize that research when possible. And they need to do this facing ever decreasing product cycles. This will require new structures, processes, and rewards systems to change cultures and practices that worked very well in the past but will not serve anyone in the globally competitive world of the 21st century.

### Q. You've mentioned various skills that graduates need. What about ethics and leadership qualities?

A. We've all read about Enron, but that's not the norm. Almost all the people I've worked with in business are ethical and honest. But the fact is that too many kids are coming out of their growing-up experiences with a wild disconnect about what's right and wrong. One survey showed that 70% of the kids had cheated in some way on exams they took in college. There has got to be an increased focus on the qualities needed as a leader and the importance of ethics. In business we live and die by our honesty and trustworthiness.

### Q. Earlier, you said that no graduate should leave a university without strong communication skills, technology literacy, and fluency in multiple languages. How would you grade higher education as a supplier of graduates with these skills?

A. Not very high, probably a D- or F. Every survey I've seen lists written and verbal communication skills as a deficiency of most university graduates. That's why I'm excited about what UNCG is doing with its writing and speaking across the curriculum. I just wish you would have even more writing and speaking intensive courses required—perhaps all of them should be that way.

## Chancellor Patricia Sullivan on Universities and Economic Development

Excerpted from the chancellor's remarks at the October 2006 Corporate Expo:

Good morning! I am delighted to welcome you to the UNCG campus for the university's first Corporate Expo. Our goal for this event is to engage one another on how higher education and business can best partner to advance our regional economy. At UNCG we are exploring largely uncharted waters with our initiative to actively seek out partnerships with our corporate neighbors. This is a new way of thinking about the university's role in the community, but we know the Triad business community is ready to take this step with us. Both the Piedmont Triad Partnership and the Greensboro Partnership have identified collaboration with higher education as a major point in their economic-development initiatives.

The president of the UNC system, Erskine Bowles, was on our campus recently to share his vision for the North Carolina economy. He spoke pointedly about how extremely important it is to prepare our state for what he calls the "economic tsunami" that is headed our way. He said it is the responsibility of North Carolina's universities, in collaboration with our corporate partners and private donors, to act now in order to help position our state and nation to succeed in the global marketplace.

The UNC System is a clear leader in forging alliances with business and industry, and UNCG has demonstrated its commitment to this vision. In addition to continually improving our core educational programs, UNCG is already pursuing joint initiatives with a variety of universities, businesses, and other organizations. We are partnering with county governments for economic development, starting business incubators that will pay dividends well into the future, and creating courses that develop students into inventive and savvy entrepreneurs.