

# ADVANCING HIGHER EDUCATION

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## HIGHER EDUCATION IN A GLOBAL SOCIETY

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### EXECUTIVE SUMMARY

Higher education, like other sectors, now functions in a global environment of consumers, employees, competitors and partners. The fundamental missions of teaching, research and service remain unchanged, but the avenues for pursuing them have greatly expanded due to globalization.

In November 2008, the TIAA-CREF Institute hosted *Higher Education in a Global Society*, a conference focused on international aspects of higher education. An unprecedented rate of change in the world makes it imperative for campus leaders to quickly understand and strategically respond to the implications of globalization.

Several common themes emerged from the presentations and dialogue. Students need an international experience to be effective citizens and workers in the emerging global order. But there are multiple means for colleges and universities to provide such experience. Challenges facing the world call for international research collaborations.

But such collaborations need to be entered into with due diligence by institutions and then be led by the academics rather than administrators. Higher education in the rest of the world is catching up to the standard set by the U.S. system. But to U.S. institutions that think strategically, the focus on higher education abroad presents genuine opportunities to better fulfill their missions and to do so on a global scale. It will be imperative for higher education to clearly articulate to domestic constituencies the benefits for students and society at large of investments in global initiatives.



## INTRODUCTION

The global economy depends on an educated workforce possessing a greater capacity for knowledge, greater powers of critical thinking and creativity, and a deep sense of moral and ethical values. In November 2008, the TIAA-CREF Institute hosted the Higher Education Leadership Conference, *Higher Education in a Global Society*, to stimulate discussion regarding the international aspects of higher education.

Many American colleges and universities are establishing a presence abroad and expanding their mission on a global scale. For other institutions globalization means recruiting international students, offering student exchanges, providing study-abroad programs, and facilitating faculty collaboration and dual degree programs. An unprecedented rate of change in the world makes it imperative for campus leaders to quickly understand and strategically respond to the implications of globalization.

The conference brought together presidents, chancellors, other senior campus officials, higher education researchers and thought leaders, and the senior management of TIAA-CREF to examine emerging issues, challenges and opportunities for advancing higher education across borders, with the realization that now is the future for creating cross-cultural understanding, building global collaborations and strengthening worldwide economies.

## BACKGROUND

According to Fareed Zakaria, Editor of *Newsweek International*, CNN Host and opening keynote speaker, higher education is America's best industry and in no other field is the U.S. advantage so overwhelming. Zakaria discussed how the U.S. arrived at its present financial and geo-political position in today's global environment, and the role of higher education in addressing the opportunities and challenges posed by that environment.

Zakaria outlined forces from the past several decades that moved the world toward a global economy featuring a preeminent role for the U.S. in terms of power and ideas. These forces were triggered by such events as the fall of the Soviet empire, the entry of China into the world community, the elimination of severe inflation from the world's economies, the revitalization of western economies, and the information revolution. Capital markets are now truly global and the global economy presents enormous opportunities along with significant constraints, especially for smaller countries but even for the U.S.

This time period also marked the rise of Islamic fundamentalism and extremism. The U.S. used its position to reorient the global agenda after 9/11 to focus on the war on terror. Global economic trends continued, however, and led to what Zakaria calls the "rise of the rest" in terms of economic stability and growth. In the mid-2000's more than 120 countries grew at 4% or more annually. The rest of the world is catching up to the west economically, beginning with the east Asian countries. Emerging countries now account for 35% of global GDP and will continue to grow in economic importance. For example, cash infusions from large stores of capital in these countries have saved many western banks during the current financial crisis.

Zakaria explained that beyond economic implications, globalization means numerous perspectives on history, philosophy and world events; the western perspective no longer dominates. Such perspectives are grounded where they originate, that is, "where you sit influences how you look at the world."

India and China will be powers in the new global order simply because of their population size. Economic challenges have been globalized. For example, increased consumption as economies grow and prosper exerts real pressure on the supplies and prices of natural resources such as oil and water. But the political power to address such challenges remains at the national level, and Zakaria maintains that a global framework needs to be agreed upon for addressing such issues.

Zakaria views the continued U.S. success in the global economy as dependent on its ability to continue “moving up the value chain,” and this in turn is dependent upon higher education. The value in economic activity lies in product conception and design and in marketing, sales and servicing, not in product manufacturing. Higher education is key to these types of high value activities. While the U.S. remains the world leader in higher education, the rest of the world is ramping up investments in this area. The U.S. must continue to invest in higher education, but beyond that, Zakaria argued, the U.S. needs to retain the best of the foreign students who earn their Ph.D.’s in science and engineering in this country. This, in his opinion, means reform of U.S. immigration and visa policies and improving the climate for immigrants in American society. U.S. higher education is a brand with extraordinary value in the rest of the world, and higher education leaders must consider how best to leverage this brand in the global marketplace. U.S. higher education faces the challenge of explaining why global initiatives and engagement are good for America, and why investment in great universities is a value proposition for the country.

### **COST-BENEFIT ISSUES FOR INTERNATIONAL EDUCATION**

American colleges and universities are increasingly interested in attracting students from abroad to enhance domestic students’ cultural understanding, to increase enrollment, and to serve international economic needs. Two million students worldwide currently study outside their home countries and this number is expected to reach approximately eight million by 2025.

James McGill, Senior Vice President, Finance and Administration, Johns Hopkins University, moderated a session exploring the costs, benefits and challenges of initiatives in international education. Panel members included Andrew A. Sorensen, Distinguished President Emeritus, University of South Carolina; Eileen Wilson-Oyelaran, President, Kalamazoo College; and Mark S. Wrighton, Chancellor, Washington University in St. Louis.

Dr. Sorensen related how studying abroad for one year and later serving as a faculty member abroad transformed him. He considers it important for students to have a study-abroad experience and for faculty to serve at foreign institutions. He is concerned about a lack of reciprocity, however, in not only having foreign students come to the U.S. but also in having foreign faculty spend time as fully integrated faculty at U.S. institutions.

President Wilson-Oyelaran also has extensive personal experience abroad and noted that Kalamazoo College has for 50-plus years considered its mission to include ensuring that students are “at home in the world,” meaning that they are able to cross personal boundaries of language, race and ethnicity, and to cross cultural, academic and structural boundaries as well. To this end, 80 percent of Kalamazoo students study abroad, many where English is not the primary language. In addition, a large number of visiting international students are involved in teaching foreign languages on campus. The college also encourages faculty to develop collegial relationships with study-abroad sites to foster cooperative research.

Chancellor Wrighton described the model developed by Washington University of strategic partnerships abroad with a network of 24 premier and developing foreign universities, mostly in Asia but also Latin America, Europe and the Middle East. The program, known as the McDonnell International Scholars Academy, aims to recruit two or three students annually from these partner institutions. These students are fully supported by Washington University. Key faculty members are also tapped to serve as ambassadors to the partner institutions, with the objective of building strong ties in collaborative education and research.

Dr. McGill noted a 20-year relationship that Johns Hopkins has had with a Chinese University and emphasized that knowledge of the culture of the host country is very important to the success of a partnership, a theme that was echoed elsewhere during the conference.

The panel then focused its discussion on the cost-benefit issues of hosting foreign students and faculty on U.S. campuses. Sorensen noted that previously foreign countries would often pay the expenses of faculty and students who came to the U.S., but the expectation now is that U.S. colleges and universities will bear increasing shares of these costs. In fact, American institutions often must compete with universities in other countries for the best students. Sorensen noted that the U.S. share of students who left their home country to study abroad fell from 38 percent to 22 percent between 1985 and 2005. He argued that U.S. institutions must be more aggressive in competing for both foreign students and foreign faculty. He noted that public universities face the challenge of convincing legislatures that this is money well spent. According to Wrighton, private institutions are also challenged to convince their boards and alumni about the value of attracting foreign students and faculty. The panel agreed that as these foreign students graduate and progress in their careers and lives there is a long-term benefit to the U.S. in how our country is perceived by the rest of the world.

Wilson-Oyelaran noted that Kalamazoo has realized a benefit for students by creating a campus environment that affords a more global experience. This is achieved by fully integrating foreign students into the campus fabric. In the process, the foreign student develops a much deeper understanding of the U.S. Wrighton reiterated such benefits flowing from the McDonnell Scholars program at Washington University. He considers it prudent to invest in a diversified student body because it benefits domestic as well as foreign students.

Next the panel discussed the costs and benefits of placing students and faculty abroad. Sorensen and Wilson-Oyelaran agreed that both students and parents are beginning to understand that international experience in college will be increasingly necessary to compete in a global economy. Wilson-Oyelaran observed that students not only want to study abroad, but to have foreign internships and service-learning experiences that will enhance their resumes. Wrighton shared the perspective that idealism and energy among students today encourages participation in public service abroad, and that institutions need to provide an infrastructure to ensure that such experiences are rewarding to the individual and a contribution to their education and preparation for their careers. All panelists agreed that it is important for students to spend sufficient time in a country so that they truly understand the perspective of the culture. They also agreed that potential partnerships should be evaluated based upon the value of the opportunity for students and faculty, irrespective of the host country.

### **INTERNATIONAL PERSPECTIVES ON THE MISSION OF HIGHER EDUCATION**

The next session explored the role and mission of higher education from the perspectives of three different countries—the United States, India and China. Graham Spanier, President, The Pennsylvania State University, discussed the role and mission in the U.S. He believes colleges and universities in the U.S. are uniquely positioned to prepare the next generation for the challenges of a global society. The opportunities presented by study abroad and international populations on domestic campuses have value for students and society at large. He noted that 600,000 international students are enrolled in U.S. institutions, with the largest numbers coming from India (84,000), China (68,000) and Korea (62,000.)

President Spanier expects a redistribution of international students throughout the world over the next decade as other countries implement strategies to better position their higher education institutions. He sees enormous potential in the expansion of educational excellence to benefit the world through transcontinental opportunities for research into urgent global problems such as climate change, energy, and infectious diseases.

Spanier then addressed the question of how to advance the concept of global education. He discussed the traditional two-fold approach of foreign student recruitment and study-abroad programs for U.S. students. Over 90 percent of U.S. institutions offer education-abroad opportunities. He noted that most international students in the U.S. are graduate students; at Penn State they account for two-thirds of the international population. But he next observed that international undergraduates tend to be more integrated into campus life, and the relationships formed contribute toward building goodwill and lasting respect among young adults. For these reasons Spanier believes it desirable to recruit more international undergraduates to the U.S. He concluded by asserting that U.S. colleges and universities need to better integrate global perspectives in their curriculum across majors.

Devesh Kapur, Director of the Center for the Advanced Study of India, University of Pennsylvania, spoke on higher education in India. He argued that there are deep problems in Indian higher education. Enrollment percentages are extremely low and quality indicators are below average for the vast majority of institutions. Such problems are known at the highest levels of Indian government, but little has been done to correct them because of political interests, favoritism and corruption.

In Dr. Kapur's view, higher education in India is plagued by limited public resources, extremely centralized regulation, a dearth of quality institutions, increasing faculty shortages in elite institutions due to weaknesses in Ph.D. programs, entrenched mediocrity in most faculty, and an exceedingly weak research culture. Shortcomings regarding access to and equity in higher education are exacerbated by failures at the primary and secondary school levels.

He explained how the weakening of the traditional higher education sector has led to the emergence and growth of a surrogate system in India in which private providers are increasingly dominant, corporations are establishing their own schools to provide workforce training, and the elites are sending their children overseas for higher education. Most enrollment growth has been in private schools, with most of the private growth concentrated in the south and west regions. Private universities focus on training for careers with high economic returns and currently account for approximately 90 percent of higher education seats in engineering and 40 percent of medical seats (both figures as of 2003.) Kapur maintained that the quality of private institutions in India is extremely weak. Furthermore, the government is reluctant to allow foreign institutions to enter the market, often because politicians have financial interests in private institutions.

Kapur also explained that large investments by firms in workplace training and development have led to the emergence and expansion of corporate "universities" and university-corporate partnerships. Firms will screen for bright individuals to become their employees and then train them because the training provided by the existing higher education system is inadequate. Like private universities, technical education is the emphasis in corporate "universities." An outcome of this emphasis, according to Kapur, is that liberal arts education in India is dying. In addition, there is almost no research occurring in higher education institutions; research was segregated into specialized centers beginning in the 1950s.

Students of the elite in India attend colleges and universities abroad; in 2007, more than 174,000 Indian students studied abroad. The U.S. is the first option (84,000 students), followed by Australia (60,000) and the U.K. (19,000.) These studies abroad are primarily self-financed for undergraduate and masters-level students. Kapur maintains that some foreign institutions exploit the situation in India by recruiting students whose parents have the ability to fully pay for a foreign education. Such foreign study represents a flight of the elite, many of whom will not return to India to pursue careers, to the detriment of India.

Implications that Kapur sees resulting from these trends are the pricing of poorer students out of higher education unless government funding policies change, the continued lack of quality in private universities, the loss of the public good from knowledge creation, graduates with credentials but few skills, and a less liberal polity resulting from the decline of liberal arts education.

In Kapur's view, the obstacles to reform in India include patronage in public institutions; incumbent beneficiaries of the system, including higher education entrepreneurs who are politically connected; elite flight to overseas institutions; and higher education serving as the key arena for distributional conflicts in India.

Zhang Li, Director-General and Professor, National Center for Educational Development Research, Ministry of Education of the Peoples Republic of China, discussed the status of higher education in China and priorities in China's plan for higher education.

Elite higher education of ancient China can be traced back to Confucius, before 500 B.C., and to the academies of the Song Dynasty developed in the 11th century. China's modern higher education system, however, is only a little over 100 years old.

Director-General Zhang explained that the purpose of higher education in China is focused along three dimensions, the first being that it should ensure that China can compete in a global economic environment while promoting sustainable development. Second, it should adapt to new needs of public affairs and promote cultural development at the regional and community levels. Finally, it should promote the economic livelihood of individuals as well as their life-long development.

With these objectives, China's higher education system has developed extensively since the turn of the 21st century. In 2007, the Chinese system was educating 27 million students. With a gross enrollment rate of 23 percent, the system has moved from educating the elite to educating the masses. Nearly 35 percent of new hires in China hold a university degree.

There are two main features in the development of higher education in China. First, priority has been given to local administration and management. Between 1992 and 2007, the number of national universities decreased from 358 to 111 while the number of provincial and local universities increased from 695 to 1,500. Second, individuals are paying a larger share of higher education expenses. The government's share of higher education expenditures decreased from 89 percent in 1994 to 43 percent in 2006, while the share covered by tuition increased from seven percent to 30 percent.

In addition, non-governmental, private universities have emerged in China and serve approximately 15 percent of students. National universities account for approximately 10 percent, a figure that was over 40% as recently as the early 1990s. The remainder of students is in provincial and local universities.

Zhang outlined what he saw as current shortcomings in China's higher education system, including decreased per capita budget appropriations, wide gaps in higher education development across different regions of China, low quality of management and faculty in some new local universities, and problems from an examination-oriented education.

Zhang next discussed priorities in China's national plan for higher education. The first is realizing steady development while guaranteeing quality in education. The expectation is that China will continue educating a larger share of its population, with 37 to 40 million university students by 2020. This will allow higher education in China to better adapt to labor market demands in terms of both the quantity of workers needed and the quality of their skills.

In the future, China will be graduating tens of millions of students each year who will be competing for jobs. Higher education institutions will need to adapt programs and disciplines to match the employment needs of their home regions. Zhang explained that this will be guided to some degree by the government, but also by individual institutions.

Zhang said that the government will also focus on the build-up of two high-level world-class universities and over 100 high-level resource universities, along with continuing investments in other 4-year colleges and 2-3 year vocational colleges. The level of government spending on higher education has been increasing over the past decade, even though the share of higher education expenditures accounted for by the government has fallen. The government will attempt to increase the growth rate of its higher education spending and in the process focus on subsidizing poor students as well as improving the conditions of the universities. Another priority for Chinese higher education, according to Zhang, is creating a platform for life-long learning for all individuals.

Zhang closed by explaining that the word “da xue” in the Chinese language has two meanings. The first is the classic definition of a university as a place of high-level learning for innovating knowledge and culture. Second, it is one of the four basic works of Confucianism, called “great learning,” which promotes brightness and morality, and helps people start afresh and improve ethics. He observed that China has an array of higher education institutional types with the overarching objective of pursuing all opportunities of great learning.

### **IMPERATIVES FOR CREATING SUCCESSFUL GLOBAL PARTNERSHIPS**

The next session examined the benefits and challenges of global partnerships in higher education, as well as strategies for building such partnerships. The panel consisted of Leo Lambert, President, Elon University; M. Peter McPherson, President, National Association of State Universities and Land-Grant Colleges; and Kathleen Waldron, President, Baruch College, CUNY. The session was moderated by Ronald A. Crutcher, President, Wheaton College.

President Lambert shared that corporate CEOs have given him the message that higher education must continue to pursue internationalization aggressively in order to prepare students for leadership. This includes study abroad, language requirements, and a more international experience on domestic campuses. Students must have an understanding of world religions, economic systems, political systems and cultures.

President Waldron explained that Baruch College is the most ethnically diverse college in the U.S.—40 percent of students were born outside the U.S. and 60 percent speak more than one language with over 100 languages spoken on campus. But for reasons such as economics, family obligations and cultural restrictions, study abroad is not a realistic option for most. So Baruch takes advantage of the international experience that is available on campus and in New York City to promote initiatives with different international groups and cultural institutions as part of the academic program.

Peter McPherson lamented what he sees as a lack of priority placed on study abroad by the large majority of employers when hiring, the exception being multinationals and a few others. Employers tend to value the flexibility that study abroad demonstrates in the individual more than the experience itself. He thinks that higher education is ahead of employers in understanding that an educated individual must have a sense of the world. He maintains that more research is needed regarding the academic value-added of the study abroad experience.

President Crutcher shared findings from an Association of American Colleges and Universities’ project which identified essential learning outcomes that all students should have, including knowledge of human cultures, intellectual and practical skills, personal and social responsibility and integrative learning. A survey of employers done as part of the project found that experiences regarding global issues, cultural values and traditions, and teamwork skills in diverse groups were important. Waldron noted that many employers who need graduates willing to accept international assignments for a few years are having a difficult time finding them. In response, some are beginning to create partnerships with colleges and universities to fill this need, an example being a program between Ernst & Young and Baruch to help fill E&Y’s need for Mandarin-speaking accountants to work in China.

McPherson commented that internationalizing a campus requires the president to make it a priority and there are, of course, other competing initiatives for the short list of priorities. He argued that for the benefit of the students, internationalization should make that list. He also asserted that metrics are needed to track progress in achieving greater internationalization.

Waldron noted that international programs on campus need to be institutionalized and strategic so that they do not fade when key faculty with overseas relationships leave the school. This is the responsibility of the president, specifically to provide resources and develop measures of success and accountability.

Lambert built on these observations by outlining what he sees as the importance of building internationalization into the strategic plan of a college or university. He noted that Elon has a specific internationalization plan for the campus covering curriculum, faculty, staff, students, and facilities. He also noted that alumni and parents of students who have experienced study abroad, international internships or international service are often powerful champions of these plans, as well as financial benefactors.

Waldron discussed the curricular pressures that come with corporate partnerships. For example, educating business students to function in a global economic structure means teaching them U.S. accounting rules and practices plus the European model studied in the rest of the world. At Baruch, the accounting faculty is engaging leading accounting firms to educate them regarding the core elements in accounting that will need to be taught in a new way.

Lambert commented on the importance of faculty as drivers of internationalizing the curriculum and the importance of supporting them in new ways since successful partnerships with nongovernmental organizations, foreign governments, corporations and foundations are the result of sustained effort over many years. McPherson underscored the importance of decentralizing decision-making to departments and programs so they can be creative in developing and pursuing international opportunities.

## **INTERNATIONAL RESEARCH COLLABORATIONS**

The opportunities for research collaborations across borders and the requisite leadership roles for institutions and faculty was the subject of a session featuring Claude Canizares, Vice President of Research and Provost, Massachusetts Institute of Technology; Elizabeth D. Capaldi, Executive Vice President and Provost, Arizona State University; and Mark Yudof, President, University of California. The session was moderated by Molly Corbett Broad, President, American Council on Education.

President Broad opened by commenting that in the face of stagnant or declining federal support for research, colleges and universities are open to and looking for partnerships around the world. In fact, in an era of constrained resources, collaborations may be the best means for expanding knowledge and addressing pressing global issues. Other parts of the world are increasing their R&D and expanding their higher education systems as a focused economic development strategy. She noted that star academics and researchers tend to cluster and therefore many foreign-born American scientists return to their homelands once that country develops a significant strength in their particular area of expertise. This is a development that could have profound effects on the U.S. given that one in four faculty in engineering, life sciences, physical sciences, and mathematics was born outside the U.S.

Broad, however, does not view these developments as the gains of one country at the expense of another; rather that increased research capacity around the world has the potential to facilitate growth and development around the world. A key in this regard is opening borders to more collaborative research. Scholars are mobile and will connect with those with whom they can do their best work, regardless of time zone. Nations' quality of research and academic life can only benefit from increased collaborations.



Vice President Canizares reported that the nature and environment of the international collaborations in which MIT engages has and is changing. In response, MIT has established an ad hoc faculty committee to assess some of the over-arching principles, guidelines and approaches that should be taken. He commented that MIT is trying to understand the real drivers of successful collaboration, and also the genuine limitations as well as opportunities in these initiatives. He stated that international research collaborations are important to both the student and faculty experience, and allowed that for faculty, some unique research can only be conducted with a strong international connection. He also emphasized the importance of keeping MIT centered in Cambridge, but well connected to the rest of the world.

Canizares asserted that the distinction between faculty-led initiatives and institutional initiatives matters, but the same basic principles for success apply to both. Faculty-led initiatives have existed longer and should not be controlled from the center. Institutional collaborations are entered into by some layer of administration and may require commitment of central resources, but they still must be faculty driven. Another objective for MIT is that any international collaboration create added value for the domestic campus and not detract from campus activities. Finally, he noted that cultural differences need to be recognized and addressed in research collaborations. Also, expectations need to be matched on both sides and a clear agreement on how to manage intellectual property rights is essential. In fact, he noted that MIT has walked away from potential collaborations where the intellectual property rights could not be agreed upon. This is an issue to be addressed by international law, according to Canizares.

Provost Capaldi stated that international research collaborations will increase because there is now the quality and capacity abroad to make them desirable, and because issues such as health, global warming, terrorism, etc. demand it. But funding for this research must be managed from both domestic and foreign corporations and governments, and this can be challenging. She stressed that international research collaboration can be done within the U.S. by U.S. colleges and universities because many foreign corporations have established R&D centers here. She believes an imperative for colleges and universities is to better connect basic research with economic development, an area in which U.S. institutions can learn from foreign institutions.

Capaldi worries about faculty members establishing research collaborations on their own because of the complications inherent in the laws and regulations across states and countries governing credit, financing, use of animal and human subjects, etc. She noted that many faculty will not be well versed on these matters. She noted further that there are inherent logistical difficulties as well as the cultural differences in conducting research internationally. And she also stressed recognition that foreign institutions do not tie education to research as is done in the U.S.; research abroad is typically driven by a desire to achieve quick direct economic results.

President Yudof voiced a cautious perspective on international research collaborations. He maintained that a sense of ownership and competition can make collaboration difficult in any setting, including international research. He also emphasized the challenges posed by international laws governing mutual engagements and by comparative laws across countries addressing particular issues. But there are areas where international research collaborations make sense, such as physics and astronomy projects involving incredibly expensive pieces of equipment and in areas where there are complementary resources.

Yudof maintained that U.S. colleges and universities, at least the publics, sign too many collaborative agreements. In many cases, there is an agreement on paper but nothing comes from it. He reiterated the belief that if the initiatives are to be solid, then academics have to be in charge of the process with assistance from department chairs and deans. He also believes we can have meaningful research collaborations with countries whom we consider to be competitors for faculty, students, resources and prestige. Finally, he noted that it makes little sense to enter into a research collaboration agreement unless the country involved has a functioning legal system that protects patents and copyrights; otherwise it is a very difficult environment in which to realize innovation.

**INTERNATIONAL WORKFORCE DEVELOPMENT**

The final session of the conference examined the employment needs of business and the appropriate role for higher education in producing and sustaining a successful international workforce. The panel consisted of William W. Destler, President, Rochester Institute of Technology; Daniel Guaglianone, Global Leader, Recruiting and Staffing, Merck & Co.; Constantine Papadakis, President, Drexel University. The session was moderated by Garrick Utley, President, The SUNY Levin Institute.

President Papadakis maintained that industry expects universities to prepare students to function in the profession they have chosen. In addition, universities are expected to produce graduates with an understanding and appreciation of diverse cultural, social and political systems; an ability to function in areas with vastly different infrastructures; the ability to communicate with others in the dominant language of the areas where they are located; the ability to bring together people with different backgrounds, perspectives, cultural and consumer understandings to work as a team; and the ability to identify and analyze opportunities in a foreign country, and form partnerships abroad.

He then noted that it is not realistic to expect university faculty to teach students all these skills. Drexel's response has been to create an international component to the undergraduate program where students live and work in a foreign country. Papadakis sees the program resulting in students with a global view regarding their profession and an understanding of what it takes to work in a global environment. At the same time, before there is even the opportunity to travel abroad, he advocates a well-diversified campus that blends foreign students with American students in an environment that broadens global perspectives.

President Destler began by noting that 10 percent of RIT's students on its Rochester campus are international, including 50 percent of the graduate students. In addition, RIT has established several overseas campuses (Dubai, Croatia, Kosovo) that were not established in collaboration with foreign institutions; 10 percent of RIT's total enrollment is through these foreign campuses. Destler would like to see RIT's U.S. students use these foreign campuses for study abroad and as bases from which to pursue co-ops, but students are reluctant to do so. He later commented that RIT and most institutions could and should be more creative in using their international faculty and graduate students to foster an international environment on campus.

Mr. Guaglianone said that from his perspective U.S. higher education was doing the job that business needs done regarding workforce development. He noted that half of Merck's 60,000 employees work outside the U.S. and half of Merck's revenue is generated outside the U.S. The key to business success in his view is people, and the business imperative is finding the very best people for the job and then effectively leveraging them. He stated that global work teams are common and people are needed who can function in that environment. He did acknowledge that technology is changing so rapidly that companies will always have to do some of their own training and he also sees industry being more collaborative with higher education in developing programs for the classroom that will react more quickly to changes in technology and the workplace.

The four items Guaglianone considers crucial in a global work force are superior functional discipline skills, multiple language capability, understanding of cultural differences, and an awareness of one's ethnocentric behaviors and the ability to control those. He thinks that the increased diversity on campuses today is part of the reason for the success of higher education in producing such individuals. Finally, he observed that the most successful employees and executives abroad are those individuals who truly try to integrate themselves into the culture. These are the individuals who can form productive work teams with others who may be residing in a number of different countries. The eventual leaders in business are those individuals with both technical skills and the "soft" people skills.

## **CONCLUSION**

As noted by Roger Ferguson, Chairman, President, and Chief Executive Officer of TIAA-CREF, during his keynote address, the recent crisis in the financial markets highlights the sweep of globalization and the complex challenges confronting our society. He maintained that a better-educated global workforce is essential as we contemplate the future of the global economy and worldwide standards of living. He further argued that a better-educated workforce requires a global investment in human capital. This may necessitate more aggressive enrollment policies for higher education, particularly to increase enrollments in developing countries. It will also require more dynamic international cooperation and collaboration that do not presume a zero-sum game among countries; the academy can lead the way in fostering more expansive thinking in this regard. Finally, this calls for a broader definition of higher education, one that focuses on developing critical thinking and creativity as much as intellectual capacity and which also provides significant opportunities for lifelong learning.

The understanding of these issues and challenges by the leadership of higher education, as well as the development of programs addressing them, was evident in the presentations and discussion throughout the conference. There was a consensus that the U.S. system remains the world leader in higher education, but the rest of the world is catching up. Rather than being threatened by such developments, U.S. colleges and universities are viewing them as opportunities to better fulfill their missions of advancing knowledge through research and educating the next generation of workers, educators and leaders throughout the world, and in the process promoting the economic growth and social progress and stability of the world.

## **ABOUT THE AUTHORS**

### **Paul J. Yakoboski**

Paul Yakoboski is a Principal Research Fellow with the TIAA-CREF Institute. He conducts and manages research on issues related to retirement income security, including saving and planning for retirement, retirement plan design and managing workforce retirement patterns, and research on issues related to strategic management in higher education. Prior to joining the Institute he held positions as Director of Research for the American Council of Life Insurers, Senior Research Associate with the Employee Benefit Research Institute and Senior Economist with the U.S. General Accounting Office. He is a member of the American Economic Association and serves on the editorial advisory board of *Benefits Quarterly*. He previously served as Director of Research for the American Savings Education Council. Yakoboski earned his Ph.D. and M.A. in economics from the University of Rochester and his B.S. in economics from Virginia Tech.

### **Robert Glidden**

Robert Glidden is president emeritus of Ohio University, having served as president of that institution from 1994 until his retirement in 2004. Previously he was at Florida State University for fifteen years, as professor and dean of the School of Music (1979-91) and then as provost and vice president for academic affairs (1991-94). During his career he has been a member of the faculties at Wright State University, Indiana University, The University of Oklahoma, and he was dean of music at Bowling Green State University in the late 1970s. He also served for three years, 1972-75, as the executive director of the National Association of Schools of Music and National Association of Schools of Art in Washington.

Dr. Glidden took his academic degrees, all in music, from The University of Iowa: the B.A. in 1958, the M.A. in 1960, and the Ph.D. in 1966. Glidden has been active in national higher education affairs for more than 30 years. He was chairman of the Council on Postsecondary Accreditation in the mid-80s and more recently was founding chair of the Council on Higher Education Accreditation (CHEA) in Washington. He served on that board until 2004 and continues to work with CHEA on special projects. For the American Council on Education he served as chair of the Commission on Leadership and Institutional Effectiveness and on the Advisory Committee for the Center on Policy Analysis. He continues to serve ACE as facilitator for presidential roundtables and as a mentor for the ACE Fellows Program. He also works with the TIAA-CREF Institute in program planning.