One of the advantages of being asked to predict where higher education will be ten years in the future is that it is likely that no one here will remember what I said today. Leaders of higher education institutions know how hard it is to predict what forces will predominate two or three years into the future, no less ten.

So my purpose today is not to predict where we will be in ten years, but to identify the main currents with which we will wrestle and to offer some thoughts about the directions that the arc of higher education is likely to take us as we navigate those currents.
To make this discussion a little more manageable, I will exclude both students at the wealthier, elite institutions and students who do not seek a four-year degree, either at a single college or in two steps beginning in a community college.

Just to be clear. I am not excluding lower income families – quite to the contrary. I am focusing on the great middle class of American students seeking at least a four-year degree at institutions ranging from small liberal arts colleges to major publics – what we at Pace like to call the aspiring heart of America.

I’d like to discuss six major forces with which we will all contend over the next ten years. There are more, but these are among the most important:

1. K-12 education
2. Demographics
3. The customer/student syndrome
4. Cost and student loans
5. Government regulation and accreditation
6. Technology
1. K-12 Education

It may surprise you that I would start a discussion of higher education with K-12. But the plain fact is that too high a proportion of the great middle class of American students come to college with inadequate education in math, in written and oral communication and in world culture and history. We can fill many of these gaps at the undergraduate level. But because of the growing importance of technology and analytics, math is becoming a critical foundational skill in virtually every discipline – in both professional programs and in large parts of the arts and sciences – especially the STEM disciplines of course, but much of the humanities as well.

Students without a strong working knowledge of algebra, geometry, trigonometry and perhaps some calculus will be unable to deal with the importance of high level analytics in undergraduate business programs, with the hard sciences, with computer science, computer engineering and information systems, with nursing, psychology and many of the new health care professions, and, increasingly, with large parts of the traditional humanities.
When those students arrive at our doors, they become our problem. The lack of adequate math foundational skills is a sea anchor on the undergraduate curriculum. A curriculum that should become increasingly demanding and sophisticated over the next ten years will be limited by the inability of too many students to deal with the underlying mathematics.

We need to acknowledge the social cruelty involved in this problem. Structural unemployment and income inequality have become major problems in America. It is precisely the first-in-the-family- to-go-to-college and immigrant students who do not have the high-level secondary school preparation to grapple with the knowledge-worker curriculum required by a modern society who will be left behind.

The need for math proficiency at higher levels will increase every year in the next decade – it is a function of the exponential growth in the importance of technology and science and engineering.
We, of course, can solve this problem by providing courses to bring our freshman up to speed. But it is difficult to find room in the traditional curriculum for remedial courses. Moreover, we will have to make increasing room in the curriculum of virtually every discipline for increased education in the technology used in that discipline.

How will we fit it all in? Increasing the required number of credit hours runs up against the pressure for controlling the cost of higher education. Pace is experimenting with an optional free summer online course in math to bring under-performing admitted students to a level where they can start their first semester with the usual first-year math course. But the real need is to go further and take steps to raise the level of math proficiency of the whole entering class.

2. Demographics

The second major trend with which we all must contend is the changing demographics of the college population. Those
demographics are changing in virtually every respect: numbers, national origin, gender, color, age, and, for want of a better descriptor, culture – by which I mean Millennials vs. Gen Z.

You are probably aware that the replacement birth rate in developed societies is about 2.1. The actual birth rate in the U.S. is about 1.9 – which means that without immigration, we would be shrinking like most Western countries and Russia. A recent Pew study projects that by 2060, more than a decade but not so far away, the population of the U.S. will be 44% white, 29% Hispanic, 13% black, 9% Asian and 6% “other.” The major growth in the college-age population is expected to be accounted for by Hispanic students.

The percentage of women undergraduates in America has risen to almost 58%\(^1\), and appears to be increasing. The New York Times recently reported that the wife is the primary earner in 48% of white married couples, and that the percentage is slightly higher in black families.

Adult education will be increasingly important. The impact of increasing life spans, better health, technology, structural
unemployment, and stagnant middle class earnings coupled with the disappearance of guaranteed benefit pensions has meant that more and more men and women in middle age and later are going back to school for graduate degrees and certificates to acquire new knowledge, new skills and whole new careers.

All this means that over the next decade most of our institutions will be educating a very different student population, and the idea that we can effectively teach the same courses in the same way to these students is clearly wrong-headed. It is going to require a high level of curricular retooling that many faculty members, particular those who have been teaching the same course for many years, will find difficult to swallow.

We are just beginning to see the impact of the increasing diversity in the student population on attitudes toward student life, the curriculum, student/faculty and student/administration relations. These issues will not disappear. We will spend a lot of the next decade learning new ways to understand and accommodate this increasingly diverse student body.
Adult students bring their own diversity – almost all are part-time; most know exactly what they want to get out of college or graduate school; they have a preference for online education; and many are highly experienced in the areas they are studying but lack the conceptual and technical framework that their upgraded jobs demand. Others are headed toward major career changes.

If the institution’s faculty operates from its traditional paradigm of what and how those students “ought” to learn, the result will not be a good one.

Finally, foreign students have become ever more important in filling the gap for tuition-driven institutions. The combination of a long-term demographic dip in the number of high school seniors in the Northeast, particularly in New York State, rising tuition, sharply reduced state subsidies for public colleges and universities, the withdrawal of financial support from churches and other religious groups for religiously-affiliated colleges, and intense price competition for traditional students in the form of every-higher
discount rates, have caused colleges and universities throughout the country to turn to higher-paying foreign students—and, in the case of the public universities, students from other states who pay higher tuition than in-state students.

There has been, in particular, a huge influx of students, particularly graduate students, from China and India. How long will that continue?

I worry about how long the number of Chinese students will stay so high for a number of reasons: China is building new universities at a great rate; its one-child policy, only recently eroded, has already ended the growth of college-age students; the increasing rejection by President Xi Jinping of Western values as inconsistent with Chinese culture; and the inevitable clashes that always accompany the relationship between a dominant power in a region (the United States in Asia) and a strong, rising power in the same region (China) – are all portents of change. These factors could lead to a sharp, Chinese government-mandated reduction in the number of Chinese students studying in this country, especially if we make it
easier, as we should, for foreign students educated here to remain in the United States with long-term work visas.

The situation is quite different in the case of India. The absence of population control has meant that the number of college-age Indian students is extremely large. The Indian system of higher education, with the exception of the excellent IITs, has not kept up with population growth in size or quality.

As the Indian middle class grows in size and wealth, the number of families able to afford to send their sons and daughters to the United States for college and graduate work will continue to grow. For how long? None of us can say. But foreign students will continue to be an important source of both revenues and intellectual capital for much of the next decade.

If the number of foreign students in the United States shrinks overall, there will be increasing competition for those who still want to study here. It is my impression that many colleges and universities will have a long way to go to make them feel especially welcome and well integrated in American culture.
3. The Student-As-Customer Syndrome

When I was an undergraduate, I basically accepted as a given the shape and content of the educational program that college – in my case Princeton – provided. Mine was not called the Silent Generation for no reason. Now, skip forward to the summer of 2004 when I began at Pace as Dean of the Law School.

On July 5, 2004, which was my first day as Dean, I received my first email. It was from a summer student demanding to know why the air conditioning in the lecture hall he was sitting in was so inadequate, pointing out how much he was paying to be there and demanding to know what I was going to do about it. There was the student as a service-buying customer!

The Millennials have been a different kind of student. They and their parents demand a value proposition connecting college education to good jobs, good pay and successful careers. That value proposition has been seen as profoundly threatening by traditional liberal arts colleges.
I personally valued – and value to this day – my classic undergraduate education in an interdisciplinary program of political science, economics and history, leavened with a healthy dose of the humanities every semester – but I went on to law school for professional training. The cost of higher education has put that route beyond the reach of many lower income families because of the very large student loans that are typically associated with professional graduate schools.

The focus on career preparation has been magnified in the case of Generation Z, the group that is just turning 18 and some of whom are beginning to enter college. This is a generation that came of age in the 2008 recession. They saw their families and their friends’ families lose their jobs and lose their homes. They are very conscious of the need for economic security, and very distrustful of whether large companies will give them the kind of security they crave. They think of themselves as “shopping” for the programs that will provide them the education that will help them attain their objectives – and that they are paying to obtain the “product” that
they want, not necessarily what the university thinks they should have.

Employers have joined this parade. The recession has produced severe cutbacks in formal internal training, even among the largest companies. Employers expect graduating students to have more than a firm grounding in the substantive knowledge applicable to their field; they must be fluent in the technology applicable to their field, to have experience working in collaborative teams, to be effective in written and oral communication and to know how to navigate a corporate culture. Thus, to some degree, the arc of higher education depends on the arc of the job market, whether we like it or not.

The response thus far of the higher education establishment – both liberal arts institutions and the foundations that focus on higher education – has been to circle the wagons and extol the value of classic liberal education. Unless the U.S. growth rate increases substantially, I don’t think that response will sound as strongly over
the next decade except in the most elite institutions and for the best students.

At the same time, there is a major pedagogical challenge that faces comprehensive universities like Pace and many others that seek to combine liberal education with professional preparation, whether for the workplace or for graduate school. The traditional approach has been to have a liberal arts core during all or part of the first two years followed by two years focused on professional knowledge and skills. This is a fairly crude layer cake, and it assumes that the two elements are somehow separate.

I like to describe the objective of a Pace education as creating “thinking professionals” – those with the substantive knowledge and skills to begin to function effectively in their professions when they start work, accompanied by the breadth of knowledge, the thirst for lifetime learning and the independent and critical thinking skills and experience that are at the heart of liberal education.

The layer cake approach will not fully accomplish that admirable objective. Success requires a careful integration of the
two parts of the curriculum so that each supports the other. The philosophy courses should feed into the solution of the ethical conundrums that accountants, nurses, computer scientists, teachers, psychologists and other professionals face on a weekly basis. The history, political science and literature courses should inform the cultural breadth and understanding that it takes to be successful in a globalized economy. For many of us, creating that integrated curriculum will be a decade-long project.

This student-as-customer syndrome also has had an impact on fund-raising for universities across the country. While the total amount of giving to colleges and universities has continued to rise, it has taken the form of an increased number of large gifts in the face of a steady national decline of annual fund giving. The Millennials are saying “I paid a lot for that education; in fact, I am still paying for it through my student loan repayments. Why should I give X University even more money?” Among the many long-term challenges facing higher education is finding new ways to build and solidify the organic ties between alumni and the university and to
create a habit of annual support – no matter how small – in support of those ties.

4. Cost and student loans

Among the most important and wrenching long-term issues facing higher education is the rising cost of education at both public and private institutions and the mountain of student debt that has resulted. There are few areas where there is so much misinformation, where the data available from the federal government is so misleading and where the failure to disaggregate data leads to so many wrong conclusions. Let me list a few:

- The rate of increase of the sticker price is the most frequently cited data point. It is misleading because it usually combines public and private institutions. Because the publics started with such low tuitions, the increases forced by the withdrawal of state support have led to huge percentage increases, although the in-state tuition is still quite reasonable in many cases.
• The focus on sticker price rather than net tuition cost is highly misleading, since the average discount has risen to the 40% to 50%+ range at many institutions.

• The huge debt numbers one sees in newspaper stories are usually the result of borrowing for professional graduate school, where traditionally the discount rate is very low and the tuition is very high. I am not saying that the net cost of graduate tuition is not a problem; but to mix the numbers together with undergraduate tuition is highly misleading.

When undergraduates have extremely large loans, it is often because they are using the loan program to finance a life-style that is inappropriate to their economic circumstances or the profession they have chosen. We often advise admitted students from very low-income families to commute to Pace rather than live in a dorm. They miss part of student life at the University but they
avoid burdening themselves with loans that they can ill-afford later in life.

- Between fall 2008 and fall 2015, the average net tuition and fees per student at Pace rose only 5.95%. The affordability problem stems from the long-term stagnation in blue collar and middle class earnings. Over the years, even modest increases in net tuition become unaffordable if family income does not rise.

- Like most New York City institutions, our students’ aggregate loans are relatively high compared to the national average because NY is an expensive city. But the official three-year loan default rate for our students is 4.3%, which suggests to me that we are sending them forth on careers that permit them to service their debt.

Having said all that, as a group we must come to grips with making sure college is affordable, particularly for low-income families. Whether the campaign promises about free community college or free four-year college are realistic is subject to serious
question. Much depends on the extent to which the federal
government and the states are prepared to recognize that giving the
great middle class of American students, no matter what their
economic circumstances, a high quality education must be a major
national priority.

I expect we will see more emphasis placed on a quality
academic track at community colleges – which in some places like
New York City, are essentially free when Pell and state aid grants
are taken into account. Moving on to a public senior college or a
private college for the last two years would make the four years
more affordable.

However, that would turn some private colleges into essentially
upper-division institutions – a major structural change with many
implications for facilities, faculties and adjuncts.

I frankly worry about any movement to educate students from
lower income families wholly online. They often come to higher
education with the least adequate high-school preparation, and
without good role models and guides. My experience has been that
very few students want to go to college in their living room or their bedroom. Moreover, it is difficult for a college or university to provide the kind of psychological support structures that are becoming so important to the student experience. And this is the group of students who often need the benefits of a life classroom experience the most.

What we will see over time, I think, is an expansion of hybrid programs that combine on line education with regular classroom attendance, perhaps on weekends for working students, a meaningful internship and co-curricular program and not much student life – but at a much lower cost. They will vary from the flipped classroom to programs in part of the doctrinal courses are taught on line, with asynchronous models, flexible synchronous models and digital adaptive learning, while clinical education, collaborative learning and analysis and evaluation of ideas and concepts will take place in a group setting.

5. Government regulation and accreditation
It is clear that, largely because of the size of the federal financial aid and loan programs, higher education will be engaged in a continuing process of dealing with attempts by the Congress, the Department of Education and the accrediting agencies to impose one-size-fits-all standards of compliance on the very diverse world of higher education. I spent most of my career as a lawyer, policy-maker and regulator of various parts of the financial services sector. Regulation has an important role to play in the financial markets and in higher education. But I confess to being constantly appalled at the low level of understanding of the economics, the pedagogy and the diverse nature of American higher education in both the Administration and the Congress.

In the case of the accreditors, their level of knowledge is high but they find themselves increasingly the unwilling instruments of the DOE because of the threat of having their role nationalized – witness the recent bill introduced by Senator Warren. The result is that the accreditors are involved in the affairs of American colleges
and universities at a level of detail that I believe is highly inappropriate and tends to stifle experimentation and innovation.

But it will occupy a good deal of our time for the next ten years. A 2015 Vanderbilt University study found that they spend 11 percent of their annual budget complying with regulations.

6. Impact of technology

In February 2013, Jordan Lorence posted a blog entry that said

“In fifty years, if not much sooner, half of the roughly 4,500 colleges and universities now operating in the United States will have ceased to exist. The technology driving this change is already at work, and nothing can stop it. The future looks like this: Access to college-level education will be free for everyone; the residential college campus will become largely obsolete; tens of thousands of professors will lose their jobs; the bachelor’s degree will become increasingly irrelevant; and ten years from now Harvard will enroll ten million students.”

Perhaps I am retrograde, but I just don’t believe it.

Nevertheless, edX – Harvard, MIT and 25 other institutions hit the 1 million student mark that year. In 2015, Coursera reached the 17
million student mark. Yet most of us are still here. In some cases under financial pressure, but probably not caused by the MOOCS.

MOOCS will continue to evolve and could well come to constitute the major part of higher education for adult education and education of less well-off foreign students. The question is whether those of us in or near large metropolitan areas can compete effectively in the adult market by adding a classroom element that will be perceived as a unique benefit that outweighs the inconvenience of coming to class once in a while.

The implications of this development for the substantial investment in plant and equipment by higher education institutions is something that needs to be carefully watched. To the extent that this trend results in a gradually shrinking market, there will clearly be winners and losers.

Educational technology – the impact of technology on how we teach, will continue to evolve quickly, affecting both classroom and on line pedagogy. The faculty members who forbid the use of
devices in their classrooms will be increasingly viewed as dinosaurs as Generation Z, which grew up as familiar with mobile devices as those faculty members were with the telephone, comes to occupy all of the classroom seats.

Finally, and in many ways most important, technology will have a transformative effect on the curriculum of most disciplines. It is rapidly changing most professions – from marketing to health care, from art history to architecture. A student who graduates without a strong working knowledge of the technology applicable to his or her discipline will be increasingly unemployable. A faculty member who does not have that knowledge will be increasingly obsolete. And a curriculum that does not make increasing room for that technology will be increasingly shunned.

Conclusion

Those are my thoughts about the major forces that will be at work over next ten years in higher education.

I would be pleased to answer questions and even more pleased to hear your differing views on these issues.