Let me say at the beginning of this talk that, although I have prepared remarks that I will try to follow, one essential ingredient of a liberal arts education is a student's ability to question the teacher. Today, you are my students, very distinguished ones, but you have the same rights—to ask a question of clarification or point out a counter example at any time.

My Educational Background
Before I launch fully into the topic that I have chosen for today it might be useful for my listeners to learn something of my own education because our backgrounds certainly help to form our preconceptions about good education and therefore appropriate policy recommendations.

I grew up in the United Kingdom in a system where disciplinary concentration started even at even earlier age than in the United States. I had a very broad education, and would say a general one, up to the age of sixteen, when I took national examinations in nine different subjects. In the British system I was then required to focus on a much narrower curriculum making a choice basically between an arts and a science concentration. I selected science with some misgivings. My best subjects were probably history and literature but I chose, with an element of career objective, to focus in the sciences taking mathematics, physics, chemistry and a course in general studies for the next two years. General studies covered in breadth a wide range of topics among them literature, drama, philosophy, history and civics. It was not, its worth noting, taught by staff trained in general education but by a rotating faculty of disciplinary specialists.

During the next two years I had a hard job imagining myself in a science career and my performance was much better in general studies. I decided at the age of seventeen to take a degree course in economics. I knew little of what it meant and I was, in retrospect, lucky. The mathematics and some of the science were useful in the economics program but so too were the extensive history and the geography that I had taken earlier in my career. I chose the University of Sussex, a newly established university, at that time well-funded with a self-described mission to "redraw the map of education." The most obvious feature of this iconoclasm was the abandonment traditional departments with both instruction and research located within "schools of study." I was in the School of Social Studies but economics students and faculty were scattered across European Studies, English and American Studies, African and Asian Studies and Educational Studies.
My education at the University of Sussex, I still think even with the hindsight of 40 years, was extremely good but it did have costs. Less of my time was spent in purely economics courses with fellow economics students and much more was spent with psychologists, philosophers, geographers, sociologists and even literature specialists. Courses were designed for a much broader student clientele than economists alone. For example, the material that would have been taught as Introductory Micro and Macro-economics in most universities was embedded in a broader course entitled the ‘The Economic and Social Framework.” Our course in statistics was taught by a mathematician from the School of Mathematical and Physical Sciences and was less directed to regression models than is common in economics departments then or now. I spent more time than economics students in other universities on interdisciplinary material and, importantly, learning to speak the language of other subjects. This structural interdisciplinarity had a strong appeal and for me lasting effects, many positive.

As a side note the Sussex attempt to “redraw the map of education” was largely unsuccessful. Traditional academic departments showed considerable robustness. Initially disciplinary colleagues would meet under the aegis of “subject group” that grew progressively stronger. Research funding and graduate programs needed strong disciplinary concentration, not just in economics, and the grand interdisciplinary experiment slowly expired as the departments were reborn.

In 1972 I as offered a scholarship by Columbia University in New York City. In those days most of my new classmates were recent economics graduates of the American liberal arts education system and the depth of my training was certainly comparable to their own. This is not a situation that would be found today when it’s very hard for even the best liberal arts economics graduates to gain admission. The majority of graduate school recruits today tend to be neither economics majors nor American, and the education there was relentlessly single minded.

After three years of funding, my financial support at Columbia University was exhausted and, mostly for financial reasons, I took a job at Vassar College about two hours north of New York City.

The History of Vassar College

Let me say something now about college where I teach. Vassar had been founded in 1861 by an English immigrant, Matthew Vassar who had a made a small fortune in the beer brewing industry. He had in his later years determined to seek some form of immortality for himself and
for his adopted city. He had initially thought that the best idea would be to build a replica of the Great Pyramid at Giza in Egypt on the banks of the Hudson River which flows past Poughkeepsie but he was persuaded by his religious advisor that a better project would be to found a College for women. It should be, the mentor suggested, one in which the liberal arts education would be truly on an equal with that of the great men’s colleges Columbia, Yale, Harvard and Princeton, which have grown into the great universities we know today. Let me explain that in America today a university is distinguished from a college by the ability to issue doctoral degrees. A US college (unlike the British Oxford and Cambridge Colleges) is an exclusively undergraduate teaching establishment, usually standing alone though the units of undergraduate instruction of the major universities are also called colleges, as in Columbia College.

Matthew Vassar’s “magnificent enterprise” would leave a legacy that he hoped would be “more lasting than the pyramids.” Whether this is true we will have to wait and see.

Vassar’s early curriculum followed the curriculum of the male colleges with some allowance for the fact that the early students were from wealthy families destined to be wives and mothers and not career women. Among its faculty were leading female thinkers of the day who could not, because of their sex, be appointed to major universities. Maria Mitchell for example, a professor of astronomy, was the first woman member of the American Academy of Science. My own department, economics, had a collection of very distinguished women. It also produced outstanding graduates. Grace Hopper rose to be an Admiral in the US navy and was one of the pioneers of computer science.

By the 1950s more and more, women were seeking careers and the rigor in the curriculum increased. However, the 1960s brought a major challenge for the women’s colleges. The major men’s colleges and universities started to admit women and students who would have come to Vassar or the other elite women’s colleges, Smith, Mount Holyoke, Radcliffe, Barnard, Bryn Mawr, and Wellesley (collectively know as the Seven Sisters) were admitted to Harvard, Yale, Columbia and Princeton and to other leading men’s college’s. Our present President, Catharine Hill was one of the first women to graduate from Williams College a well-respected formerly exclusively men’s college which had been founded in 1793.

The members of the Seven Sisters chose different routes to survive in a changing world. Radcliffe College was absorbed by Harvard and ceased to exist. Mount Holyoke, Smith and Bryn Mawr remained woman only (at least for undergraduates). For a while Vassar contemplated a merger with Yale but in the end, under pressure from former students and members of the faculty,
chose to stay independent but to admit men, starting with the class of 1974. Since that time Vassar has had a mixed student body, though women still outnumber men -though this is not unusual. The Undergraduate body at Yale for example has more women than men.

I arrived at Vassar in 1976 in the early years of “co-education” with only a general idea of what “liberal arts” in the full-blown American sense of the word was. I was lucky to find that I fell in love with both Vassar and the idea of Liberal Arts from the beginning. My own undergraduate experience was as close to US liberal arts as could be found in the UK but even so the degree of early disciplinary specialization was much greater in the UK. I have subsequently come to think that, when done well, the American liberal arts education is simply the best available and it promises most for the future.

Vassar today has about 2,450 undergraduate students, 290 faculty, a large and growing administration and a student/faculty ratio of about 9:1. We have some 28 departments of instruction, 13 multidisciplinary programs and 6 interdisciplinary programs. You can major in about 50 different majors at Vassar.

A few of you have been inquisitive enough to go to Vassar’s webpage an have asked me about Vassar’s fees -which you rightly judge to be “astronomical” at about $40,000 per year for tuition and a further $8,000 for room and board. That is almost 5 million yen per year! How you ask can students finance themselves, and it’s a good question.

First, the College is in a position to give aid. We give about $40 million a year in student grant aid – that’s about 4 trillion yen in total. Some students get a free ride while others get smaller amounts of aid. Altogether about 60% of our students get aid. It is “need based” - that is if you are accepted the College will offer you a package based on the financial information that your family submits. In a sense we are what economists call price discriminators - the price a student pays is based on his/her ability to pay. One colleague at another college says that the liberal arts colleges are “part church and part used car dealership” - we try to do good works but we offer also different prices to different people.

Where does this money come from? Most of it is the gift of former students who we encourage to stay close to the college and to give to the college. These accumulated gifts provide us with an "endowment" of about $800 million dollars -that is about one quarter of a million dollars for each active student. While this might to you seem plentiful in fact we are by the standards of other institutions quite poor. Wellesley, Hillary Clinton’s old college, has close about twice as much,
Swarthmore three times and Grinnell College in Iowa has over a million dollars per student. The
great universities have more money. Harvard has an endowment now of almost $40 billion.

There are also government programs to give grant support and low interest loans to families of
students in college. Financing college is a known burden for people with the children in the
United States and provision is often made early in life, sometimes by grandparents.

Before I leave the college I should say a little more about our alumni. They number about 36,000
in number and embrace many fields of arts and science -Elizabeth Bishop, Poet Laureate of the
United States, authors Mary McCarthy, Jane Smiley and Edna St Vincent Millay, Congressman
Rick Lazio, actress Meryl Streep and artist Nancy Graves. We also have a group of famous
non-graduates who got swept up in their careers before they finished – Jacqueline Kennedy,
actresses Jane Fonda, Anne Hathaway and Washington Post Publisher Katie Graham.
Fortunately, we also have a group that are less famous -but on the whole richer having made
money in business and law that they return to the college in support.

The Liberal Arts Curriculum
The word “liberal” is one of the most confusing in the English language. In America today it
means a person to the left of the political spectrum. In nineteenth century England it meant
someone who was ideologically opposed to government intervention and favored free trade.
Now in the UK it means someone in the middle of the political spectrum. Liberal can also mean
plentiful, but none of these words really captures the origin of the word “liberal” in relation to the
Liberal Arts. Here the root, as elsewhere, is in the Latin word for free but it originally meant the
education to be given to “free men” as opposed to those who had to learn a trade or profession.

Originally the syllabus was composed of seven “arts”:

the trivium -grammar, rhetoric, logic, and
the quadrivium –geometry, arithmetic, music and astronomy.

However these classifications are outdated. In modern colleges and universities, the liberal arts
include the study of art, literature, languages, philosophy, history, mathematics, and science.
The essence of the theory of liberal arts education is that all students should have some exposure
to all of these disciplines -though an important question is whether or not this should be a series
of requirements or should be a matter of student choice.
Unlike most institutions of higher education in other parts of the world, students are admitted, generally at the age of 18, with no chosen degree program. If well-advised, their first year is spent taking a variety of different courses, sampling from the ones that they have not experienced or have been taught badly in high school. During this first year they discover their aptitudes and gravitate toward a major, although even then only a minority of their time will be spent on that major. At Vassar each student must take a total of at least 34 different courses (most take 36) and the share of the major in that cannot be more than one half. The minimum number of courses to major is generally eleven. Most students take 12 or 13 courses in the major subject.

There are also distribution requirements - at least 25% of work must be outside of the major division. Vassar has 4 divisions - sciences, humanities, social sciences, and languages. Economics is in social sciences and so students in general, economics students take about 24 courses that are not economics, about 12 inside social sciences and 12 in other divisions.

Liberal arts education is both investment - finding a career - and consumption - training to appreciate life's pleasures. We offer courses in art, music, drama that are taken by (for example) economics students because that is part of their preparation to enjoy life.

Given the unstructured nature of most students' programs in a liberal arts college, academic advising is key and each student is given a faculty adviser when he or she arrives. It is adviser's job to determine the student's interests and with the student design a first year's sequence of study that will meet the student's interests and, it is hoped, draw out the student into new areas of interest. The word education in fact comes from Latin roots and means, in its literal senses, the leading out. Michelangelo the famous sculptor of the Italian Renaissance believed that the finished statue already existed with the block of marble and it was his job to liberate it, lead it out. I think this is a perfect metaphor for how we should view the process of education, to find the object of beauty that lurk within even the most unpromising student mind.

As an economist, students often come to me and ask what courses they should take to make money. I try to tell them to find their passion and the career, the pleasure and the money will follow if they really find it.

The Liberal Arts Method

While the curriculum and the distribution of courses are important what also distinguishes the “elite” liberal arts colleges is the character of the student teacher relationship and the teaching
method. At Vassar we are first and foremost a residential college. 98% of our students live on the campus and the majority of our faculty lives in apartments owned by the college or in houses built on college land. About 15 members of faculty actually live in college residences with the students and have supervisory and instructional responsibilities there. The educational process is therefore a 360 degree affair with instruction starting in the mornings and spreading into the evening, supplemented by evening lectures and seminars by visiting scholars and artists.

Class size is generally small. The average at Vassar is 17. Because admission is not based on interest in a particular degree program, change in student interests can create problems in terms of the balance of class size. For example, economics is becoming a more popular major, so our class sizes are increasing, and now average 24; while English Literature is losing ground in student enrollment, and class sizes are falling.

Eventually, some change might be made in faculty size but since faculty after 7 years of service have “tenure” - they cannot be fired even when there is too little work. They cannot even be asked to retire because we have no fixed retirement age. So changing the faculty is like steering an ocean liner you must look well ahead to avoid the ice bergs.

Because of the advising system, the relatively small class size and the residential nature of the college, relations between students and faculty are close. Teaching is not generally done by lecture but rather by what we call a class - usually numbering about 20 students - or a seminar which will meet around a table and has only usually 12 or 13 students. In either format the interaction is expected to be substantially Socratic in method. That is to say we focus on giving students questions, no answers. We try to shape an inquiring mind by continually with questions. Students are responsible for completing the reading ahead of time and are expected to be able to answer questions not just on what the reading says but also on questions and interpretations of the reading. Encouragement of student voice is very important. This must vary to some degree with the subject. In math and in some sciences there are right and wrong answers and it’s efficient on occasions to teach some material in more of a lecture style, but where possible provoking thought and provoking constructive disagreement is important.

One question that students in liberal arts colleges sometimes ask is “What am I being trained to do? What career will this fit me to?” This is especially the case for students who come from abroad, and those who come from economically disadvantaged backgrounds. Both groups often feel that they need a career. 8% of our students are foreign and that number is growing. Some come with substantial aid, but the need blind policy used for domestic students is modified.
Otherwise we would be swamped by very able, but relatively poor, students from India, China and Eastern Europe. 27% of our students are from racial minorities. These groups feel they need a career and often come from systems that are more pre-professional and not general. In the American system professional training comes in graduate school - law school, business school, medical school, schools of public policy which add another two to five years of study - and are just as expensive as undergraduate school. My son who has had four years of liberal arts is now embarking on three years of law school at a tuition cost of over $40,000 a year. A total of seven years of education seven years of $40,000 fees and seven years of income lost by being in school and not working. It is as I said an expensive system.

Why Liberal Arts is Important in an Age of Globalization

While we live in a world in which technical knowledge has become increasingly important, technical knowledge can be narrow and quickly outdated. While acquiring knowledge is good, I believe that the liberal arts graduate can learn how to acquire knowledge and also how to process it. I believe that only a balanced view of the world can produce leaders who have an understanding of their own society and the society of others. And these are necessary. I do not want to hold the current President of the United States as a good example. In fact he did do a Liberal Arts program at Yale before doing an MBA at Harvard, he seemed to learn nothing about the world. I have more hope for Barack Obama - a liberal arts graduate in International Relations from Columbia and a JD (law degree) from Harvard.

In the closely integrated world of today, international understanding is essential, and in that vein I would like to say a little about the multi-disciplinary program in International Studies that I helped found at Vassar and of which I have been for most of the last twenty years a director, Vassar's Program in International Studies.

I feel that with this program we have achieved many of the objectives of truly liberal education: a limited degree of specialization, contextual coursework and student choice. Each student must do advance level work in each of two traditional disciplines - economics and political science, geography and anthropology, French literature and history - and so on. Combinations are many and fluid, and even, especially for those students with keen interest in the environment science courses such as biology or biochemistry. This choice is set within guidelines determined by a multi-disciplinary steering committee. Foreign study and foreign language proficiency are essential, and the process is capped off by a written thesis that bridges the student’s two principal disciplines. There is a continuous advising process that allows change as a student’s
interests mature and alters.

The drawback of a program like this in today's bleak financial environment is cost. Essential components are team-teaching, personal advisement and small size seminars - elements that might be too expensive even at the prices we are charging. However, the program is well received by students even after they graduate. I recently did a survey of the graduates of the program to measure satisfaction. I got a more than 50% response to a single emailing and all but one of the respondents was positive about the experience. That one felt that she knew "a little about a lot" but lacked the satisfaction of knowledge in depth - a trade-off liberal arts must always face. She is now a speech writer for George W. Bush.

**Pressures on the Liberal Arts Schools**

Although I am convince that the liberal arts model is the best it faces considerable pressures and different schools are facing them in different ways.

All schools are different and have different challenges.

1. **Disciplinary scholarship.** The younger scholars of today are less inclined to want to be resident permanently in small towns and make teaching their life. International conferences and grant funding are attractive to them and they require significant research output, which means for some that teaching is less a vocation than an annoyance. This sentiment is accompanied by a focus on research, especially theory and technique at the big graduate schools so the PhD universities is less incline to regard a career that is primarily teaching a attractive (even though contact hours are quite modest compared to some occupations). Allegiance has tended to be increasingly toward a single discipline rather than the disciplinary integration that the liberal arts are oriented toward.

2. **Student pressure for pre-professionalism.** Most students from liberal arts schools do not go on to graduate school. In economics the majority find employment in business and consultancy with the preferred destination, at least before the meltdown of recent weeks, being the New York City financial sector. Industry leaders pay tribute to the advantages of liberal arts education and its role in producing the leaders of tomorrow, and look, they say, for the "best brain" and a "world view." However, the internships and jobs are more often awarded by individuals on a lower rung of the management ladder on the basis of course work in finance and facility with spreadsheets. Students know this and line up for any
course with finance in the title and pressure departments to offer, pressuring the programs. When parents are paying $48,000 per year they have some sovereignty.

3. Financial pressure on institutions. Done correctly liberal arts education is expensive in two ways. It requires a great deal of personal attention, advising and small classes and is best done in a residential context. All of these are costly in today's world. We also are committed to broadening the access to other groups who have not traditionally had full access—foreign students, racial minorities and more working class students. This will require Add to this that the best of America's liberal arts schools are between 130 to 200 years old and the failure to maintain the physical fabric of the College's is beginning to show. Most of Vassar's buildings were constructed in the late 19th/early 20th century. There is a saying that "old buildings when they are mended cost more than new ones when it's ended." Vassar and other like schools are facing immense deferred maintenance issues.

4. Broader societal costs. These are greater in a liberal arts system as more people are in education for longer than under other systems.

5. Falling potential student numbers. 2009 saw in the United States the peaking population of 17-18 year olds. The “echo” of the post war “baby boom”—that is my generation's children has passed and number are falling. This will make customers harder to get—and simply we will have to charge lower prices to fill the seats. It will also be harder to balance numbers across sexes, if this is a goal. Men choose liberal arts less than women and on top of that are less hard working.

As a result of these pressures we are trying to adapt where we can and resist where we must. This is I believe a model that should be preserved for future generations. For one thing it allows each individual to find and achieve his/her own path to excellence. Secondly through liberal arts we can produce individuals and leaders with the ability to think in a broad and informed matter about problems. This is how the world will survive globalization and the 21st century.