

**TO THE MEMBERS OF THE ACADEMIC COUNCIL
FORTY-SECOND SENATE REPORT No. 12**

Summary of Actions Taken by the Senate
June 10, 2010

At its meeting on Thursday, June 10, 2010, the Forty-second Senate of the Academic Council heard reports.

Rex L. Jamison, MD
Academic Secretary to the University
Professor of Medicine, Emeritus

**MINUTES OF THE FORTY-SECOND SENATE
OF THE ACADEMIC COUNCIL
June 10, 2010**

I. Call to Order

Chair Goldsmith called the final meeting of the 42nd Senate to order at 3:15 PM

She announced that the Academic Secretary was unable to attend today's meeting. He was accompanying his wife to her 50th college reunion. "We are very fortunate to have our awesome Assistant Secretary, Trish Del Pozzo, filling in."

There were 31 voting members and 10 *ex officio* members in attendance.

II. Approval of Minutes – (SenD#6365)

The minutes of the May 27, 2010 Senate meeting were approved as submitted.

III. Action Calendar

A. Committee on Undergraduate Standards and Policies (C-USP): List of Candidates for Baccalaureate Degrees (SenD#6262)

The list of candidates came moved and seconded by C-USP.

Chair Goldsmith asked Registrar Tom Black if there were any changes to the list. Registrar Black said the list was correct.

The list of candidates for baccalaureate degrees was approved by unanimous voice vote.

B. Committee on Graduate Studies (C-GS): List of Candidates for Advanced Degrees (SenD#6263)

The list of candidates came moved and seconded by C-GS.

Chair Goldsmith asked Registrar Black if there were any changes to the list. He replied that the list was correct.

The list of candidates for baccalaureate degrees was approved by unanimous voice vote.

IV. Standing Reports

A. Memorial Resolutions

Chair Goldsmith welcomed fellow senator, Professor Hank Greely, to present a memorial statement in honor of his colleague, John Barton, emeritus Professor of Law.



John H. Barton (1936-2009) SenD#6358

John H. Barton, George E. Osborne Professor of Law, Emeritus, died on August 3, 2009 at Stanford Hospital from injuries suffered in a bicycle accident. He was 72 years old.

John Barton spent over 40 years at Stanford. He received undergraduate degrees in physics and philosophy from Marquette University in 1958, served in the U.S. Navy, and worked for four years as an engineer before entering Stanford Law School in 1965. After graduation, he practiced law for one year before being called back to join the Stanford Law School faculty in 1969.

John's science and engineering backgrounds served him well, as he devoted his academic career to examining questions at the intersection of science and law, particularly international law. A fellow of the American Association for the Advancement of Science, Professor Barton's scholarship focused on issues ranging from national defense, to the distribution of intellectual property rights across the world, to improving the health of billions of the world's poorest people. He was a member of more than a dozen major advisory commissions, most recently chairing the British government's International Commission on Intellectual Property Rights.

Professor Barton was also a Senior Fellow (by courtesy) at the Freeman Spogli Institute (FSI) for International Studies and a founder of what is now called the Center for International Security and Cooperation (CISAC) at Stanford.

John is survived by his wife of 50 years, Julie Barton, their five children, and ten grandchildren.

Madame Chair, on behalf of a committee consisting of Professors John Henry Merryman, Paul Goldstein, and myself, I am honored to lay before the Senate this resolution in memory of the late John H. Barton, Professor Emeritus of Law.

All present stood in silent tribute.

Chair Goldsmith thanked Professors Greely, Goldstein and Merryman.



Howard R. Williams (1915-2010) SenD#6357

Chair Goldsmith welcomed Professor Howard Friedman, to present a memorial statement in honor of his colleague, Howard R. Williams, emeritus professor of Natural Resources Law.

Howard R. Williams, the Robert E. Paradise Professor of Natural Resources Law, emeritus, died April 14 at his home in Palo Alto. He was 94.

*Professor Williams taught at the University of Texas Law School, then at Columbia Law School, before he joined the Stanford Law School faculty in 1963. His area of expertise was property law. It was in the field of oil and gas law that he made his greatest contribution. He collaborated with the late Charles Meyers, also of Stanford, on a seminal casebook, *Cases on Oil and Gas Law*; they also produced an eight-volume treatise on oil and gas law, and a *Manual of Oil and Gas Terms*, which went through many editions. In the field of natural resources law, Howard Williams was an incredibly influential scholar, widely recognized as one of the supreme authorities in this complex and extremely important subject. He was also a skilful and devoted teacher, and an active and highly esteemed figure in the law school and in the University.*

Mr. Chairman, on behalf of a committee consisting of Professors Lawrence M. Friedman, Paul Goldstein, and Robert L. Rabin, I am honored to lay before the Senate a resolution in memory of the late Howard R. Williams, Professor of Law.

All present stood in silent tribute.

Chair Goldsmith thanked Professors Friedman, Goldstein and Rabin.

B. Steering Committee (StC)

Chair Goldsmith announced that among the recipients for this year's Walter J. Gores Awards for Excellence in Teaching, the university's highest teaching honor, was fellow Senator Sheri Sheppard, Professor of Mechanical Engineering and Senior Associate Vice Provost for Graduate Education.

“Sheri was cited for transforming the introductory engineering course ‘Statics’ from an unpopular requirement into a dynamic learning experience, and for affecting engineering education nationwide through her efforts to understand pipeline and pathways issues and modernize engineering education. The award also honored Sheppard for being a great listener, a source of patient encouragement, and a trusted and revered colleague to students and faculty.

“Congratulations, Sheri!”

[Applause]

Chair Goldsmith also congratulated John Bravman, the Freeman-Thornton Vice Provost for Undergraduate Education and the Bing Centennial Professor of Materials Science and Engineering. He is one of two faculty members to receive the Kenneth M. Cuthbertson Award for exceptional contributions to Stanford University.

“John, who is leaving Stanford after commencement to become the President of Bucknell University, was honored for transforming the undergraduate experience at Stanford during his eleven years as Vice Provost for Undergraduate Education. He was recognized for his tireless service as ambassador to our students and their parents, for

visiting with them on campus and traveling millions of miles to meet them around the world, and for the many ways, as the inaugural Dean of Freshman Sophomore College, he showed students that he cared--from serving barbecues, baked goods and DVDs to providing lightning fast responses to their e-mails—and finally for 35 years of working to make Stanford a better place for all.

“John is not here today, but on behalf of the many senates in which he served, we would like to thank him and wish him great success.”

[Applause]

Chair Goldsmith extended a special welcome to the newly elected members of next year’s 43rd Senate, the Chairs of the Academic Council Committees and the Emeriti Council, and several members of the Board of Trustees who were in attendance.

Chair Goldsmith encouraged all senators and university faculty to attend commencement. “It means a tremendous amount to our students and their families to see faculty members, especially those with whom they have interacted with during their years at Stanford, to participate in this milestone ceremony.”

Chair Goldsmith thanked the people who participated in this year’s Senate.

“First, my deepest thanks to the senators for attending the Senate meetings, for your time and effort to read the Senate documents, and for your energetic participation in our discussions.

“I also want to extend my thanks to the energetic members of this year’s Steering Committee. First, Andy Fire, my very active vice chair, sounding board and chair in my absence. I thank the other members of the Steering Committee, Anat Admati, Lanier Andersen, Stephen Boxer, Gordon Chang, Jeff Koseff, Virginia Walbot and *ex officio* members, Provost John Etchemendy and Academic Secretary Rex Jamison.

“Their deep consideration and lively input was tremendously helpful in choosing and steering the issues that came before the Senate. I don’t know how I am going to spend every other Tuesday afternoon without our Steering Committee meetings to keep me awake through the afternoon. Thank you all.

“I also want to extend enormous thanks to the Chairs of the seven Academic Council committees, upon whom the Senate relies so heavily for accomplishing its responsibilities in academic policy formulation, and oversight of the academic offices that implement our academic policies. Among the Chairs for the past year are four who will continue to chair their committees next year: Chris Edwards, Committee on Review of Undergraduate Majors; Richard Roberts, Committee on Graduate Studies; Steve Monismith, Committee on Research, who will continue for a fourth year, in part because of the Principal Investigator issue about which we had such a great discussion in our last meeting; and John Bender, Committee on Libraries.

“Thank you four for agreeing to continue to chair these important committees.

“Three will retire as committee Chairs. They are: Serge Plotkin, Committee on Academic Computing and Information Systems; he has also served for four years, two as Chair. Philippe Buc served as two years as Chair of the Committee on Undergraduate Standards and Policy. Tom Wasow, Committee on Undergraduate Admissions & Financial Aid will be on sabbatical leave next year and ‘unfortunately’ wasn’t willing to forgo his sabbatical to continue as Chair. Again, thank you from myself and on behalf of the Senate.

“I also want to thank all the committee members of these committees and staff. These committees and their work would not happen without your efforts and hard work.

“The Senate very much appreciates the fine work by the Committee on Committees, chaired by David Palumbo-Liu. I thank him and its members, Stacy Bent, Hank Greely, Elizabeth Hadly, Laura Lazzeroni, Ken Taylor, and Gavin Wright. In the Spring Quarter Brad Osgood and Mark Zoback joined the CoC. Thank you all for serving on this committee.

A couple special thanks. First, special thanks to our steadfast Academic Secretary, Rex Jamison, who pens the excellent and interesting minutes of our meetings, among other things, and to our irreplaceable Assistant Academic Secretary, Trish Del Pozzo. As I said at the Academic Council meeting, I would not have agreed to take this job if I didn’t know I could rely on their knowledge, experience, and attention to detail, and they have not only made my job much easier but a lot of fun. So thanks to you both as well as Laura Brewer, our real-time reporter, Susan Schofield, who filled in for Rex in the last Senate meeting, and Rex’s staff, Priscilla Johnson and Charita Clay.

“Two additional groups I would like to thank. First, would I like to thank all the presenters and panelists in this year’s Senate meeting, Ann Arvin in particular. I worked her quite hard, but there were many others as well that I tapped for several discussions and panels we had. The lively and informative discussions that took place could not have happened without their willingness to participate and the time and effort they put into attending the Steering Committee meetings and the Senate in preparing all those presentations.

“I also want to thank the President and Provost for their willingness to make special presentations at my request--in Etch’s case, with a bit of arm twisting at times--and for taking time from your busy schedules to attend Senate meetings and answer questions that came their way, whatever they might be. Maybe Senators aren’t all aware that this is not common at other institutions, and I believe it provides a strong connection and communication link between the faculty and the administration that we all very much value and appreciate.

“Okay, now you can join me in a round of applause for everybody.

[Applause]

Chair Goldsmith continued: “I could not have imagined what a pleasure and honor it would be to serve as Faculty Senate Chair. We have discussed issues of great substance, made some difficult decisions, and have learned more about the different facets of how our institution operates. If I have served as the activist chair that some have coined my tenure, I hope you have all benefited from some of the novel discussion formats and topics that I brought forward this year.

“I step down as Chair with some sadness--what will I do Tuesday lunches and Thursday afternoons?--but coupled with a great and deep pride to have served Stanford in this role, and to be a member of this great institution. Thank you all for the opportunity to serve as Senate chair this year.”

There were no questions for the Steering Committee.

C. Committee on Committees (CoC)

There was no report from the CoC.

D. Report of the President and Provost

The President deferred his comments.

Provost Etchemendy said he had a statement he wished to make.

“Earlier this year, I asked the university’s faculty Advisory Board to investigate an appeal brought to me by Professor Robert Shafer, a faculty member in the Department of Medicine. The Advisory Board concluded that that university made a mistake in not consulting with Professor Shafer before agreeing to a legal settlement involving the HIV database Web site created by Professor Shafer, an open and accessible resource used by clinicians and researchers worldwide studying treatments for HIV.

“I agree with the Advisory Board’s conclusion. I’ve determined that the university committed a serious procedural error when it did not consult with Professor Shafer prior to entering into an agreement with Advanced Biological Laboratories. In 2007, ABL threatened the university with litigation over alleged patent infringement by the HIV Web site. Although in settling with ABL, it was the intent of the university to protect Professor Shafer’s valuable research and maintain broad access to the content of the Web site, it should not have done so without consulting and involving him in the process.

“The HIV Drug Resistance Database was started by Professor Shafer in 1998 and contains data contributed by medical researchers around the world. Funded by the NIH, multiple pharmaceutical and diagnostic companies, and Stanford, the database is used more than 100,000 times each month by clinicians and researchers--representing

more than 100 countries--who are involved in HIV drug resistance testing and developing drugs to combat HIV.

“Stanford University strongly supports the work done by Professor Shafer to develop the HIV database and affirms its ongoing value to the scientific community in diagnosing and treating HIV around the globe. The university wants to reassure scholars and scientists who have contributed content or provided financial support to the HIV database that Stanford endorses open access to the data. The HIV database represents the best of public service scholarship and research at the university, and as such, the university will be providing further research funding in support of expansion of the database.

“I have apologized for the error to Professor Shafer, and do so again today. I am also announcing that the university will establish a process to ensure that faculty members are consulted on legal settlements that directly impact their research. I have asked the Advisory Board to review university practices related to this issue and have recommended that Professor Shafer advise the Board on this issue.”

There were no questions for the Provost.

Professor Jeff Koseff stood. The Senate grew quiet. “Madam Chair, I rise on a point of personal privilege.”

[Laughter]

Chair Goldsmith muttered, “Uh-oh.”

Professor Koseff, like a baseball umpire, said, “You’re safe.”

He continued, “As you know, it’s normally the tradition for the Vice Chair of the Steering Committee to regale, roast and toast the outgoing chair. It was our intention that you, the Berkeley radical activist Chair, be the first chair to be roasted by a Nobel Laureate [Professor Andrew Fire]. Unfortunately, Andy has been called away, so I’m here to announce that there will be no Fire.”

[Laughter]

Professor Koseff, “But there will be water. That’s me. “I don’t have anything prepared, because I was just told about this very short time ago. But let me just say a few things that I could put together in this short time.

“First of all, on behalf of the Steering Committee and Trish, Rex, John, and everybody, we want to say what a great pleasure it was serving with you this year. It really truly was.

“We had a lot of fun, folks. If you heard lots of laughter coming out of Building 310, it was because Andrea made it a really interesting, intriguing and engaging time to be together, not only to discuss important issues but also do it in a way that was respectful but also fun. And we thank you, really and truly thank you for that.

“On a personal note, I’m actually going to miss every second Tuesday quite a bit, so we’re going to have to find other ways to meet, my dear Natasha.”

[Laughter]

“But in lieu of that, I will read what this says, because it is important, so I will read it for everybody’s benefit.

“It’s not often that you get a document that’s signed by both the President and the Provost.

“On behalf of the faculty and students of Stanford University, in grateful recognition for your dedicated service as chair of the Senate of the Academic Council and its Steering Committee, 2009-2010, Andrea Goldsmith.”

“And we have this ceremonial gift,”

Professor Koseff presented Chair Goldsmith with a gavel on which was engraved her name and title.

“Don’t use it on anybody.”

Chair Goldsmith clarified, “Not even my husband?”

Professor Koseff: “No, especially.”

[Laughter]

Chair Goldsmith, “Thank you.”

[Applause]

Chair Goldsmith in the spontaneity of the moment, “All right! So drinks every other Tuesday!”

Professor Koseff liked it: “There we go!”

[Laughter]

Chair Goldsmith added a heartfelt, “Thank you very much for that. Thank you all.”

V. Other Reports

A. Emeriti Council report to Senate (SenD#6366)

Chair Goldsmith introduced Professor emeritus David Abernethy, Chair of the Emeriti Council, to present the annual report.

Professor Abernethy thanked Chair Goldsmith. The Emeriti Council, currently comprised of 13 members listed in a handout that was distributed to the Senate, was ably represented in the Senate this year by its *ex officio* representative, Professor emeritus Ken Scott.

Professor Abernethy commented that his group is not an elected body, but tries to represent the interests and concerns of the almost 800 faculty and staff emeriti living in the local area. “That number rises to over 900 if one includes the surviving spouses of deceased emeriti, whom we consider part of the larger university community and whom we invite to our events.”

Considering this year’s surge in the number of faculty retirements to 60 and counting, doubtless influenced by the FRIP [Faculty Retirement Incentives Program] incentives recently announced by John Etchemendy and Pat Jones, those numbers may soon exceed a thousand, a not inconsiderable figure.

“John and Pat, in their respective roles of Provost and Vice Provost for Faculty Development and Diversity, have provided crucial financial and administrative support. We thank you, John, and we thank you, Pat.”

Professor Abernethy explained that the principal means the Council uses to create a sense of community among otherwise disperse and isolated community retirees is to sponsor a quarterly lecture series entitled, “Autobiographical Reflections”, in which distinguished emeriti tell something of their personal lives and professional careers.

“Particularly interesting are their descriptions of how they got started in a field. What individual or event pushed them, usually at an early age, and often in quite unexpected ways, in one direction or another?”

“Life’s serendipities loom large in these presentations. We are working to have the recordings of this year’s and previous talks made available more generally through Stanford iTunes.

“We went public for the first time this year with a panel discussion on the timely and important topic of the U.S. health-care system, chaired by the Dean of the Medical School, Philip Pizzo, and featuring two emeriti with special expertise in this field, Alain Enthoven and Victor Fuchs. Over 200 people attended this event held in the Annenberg auditorium in April.

“As noted in your handout, we have been working with Rex Jamison this year to involve more emeriti in writing memorial resolutions. This is an area where we can

obviously render assistance since the retired faculty are often more aware of the contributions and personalities of our departed colleagues than younger members of their own departments.”

Professor Abernethy referred to the handout, which summarized an innovative collaborative program between Stanford and Foothill College in which some Foothill College students worked in Stanford science and Medical School laboratories. “The arrangement is funded by Foothill. It pays a stipend and it clearly benefits the students, helping them to prepare the transition from junior college to a four-year college or university. Council members Stan Schrier, Professor of Medicine, Emeritus, and Kaye Storm, Director of the Office of Science Research, were the key Stanford people setting up this program which we hope will continue next year. In addition, 14 emeriti volunteered to contribute their expertise in the form of lectures and informal consultation to the community college district.

“Thus far, this program has not yielded results. But we’re not giving up, and we hope to explore with community college leaders how our faculty and our staff emeriti could assist educational institutions with far greater needs and far fewer resources than Stanford.”

Professor Abernethy concluded by saying, “In past reports, I have stressed that emeriti faculty are an often neglected resource that could bring our long experience, and the relatively free time that comes with retirement, to help in teaching and mentoring, in community and committee service and in informal consultation. I’ll make that very same point today. The Emeriti Council is a way to link currently full-time employees with former employees, many of whom would like to stay connected to our universities and to be of continued service to it.

“Thank you.”

Chair Goldsmith thanked Professor Abernethy.

[Applause]

There were no questions.

B. Challenges in Higher Education

Chair Goldsmith turned to the second and final report of this last session of the 42nd Senate, an address from President Hennessy, entitled. “Challenges in Higher Education.”

President Hennessy thanked Chair Goldsmith, called attention to a handout of a list of ten challenges distributed to the Senate and began by noting, “In a moment of weakness, not having calculated that it was the last trustee meeting and two days before graduation, nonetheless, I’m here. The list of challenges are for the most part taken from a series of discussions and talks I’ve had with various university leaders

around the country and various forums in which we met. In discussing this with members of the Senate Steering Committee, and realizing that ten things would take us two hours, I partitioned it a bit. They asked me to get through as many of the first five as I could in the time available.

The President proposed to comment about each of the first five challenges and then open the floor for questions.

1) The Federal Government and regulation.

a. Future of research funding under constrained budget situations.

Higher education in this country has been fortunate since the end of the second world war to get a great deal of support for its research mission from the Federal Government. It's been a mission that has shown a particularly enlightened and largely bipartisan support from both sides of the aisle over the years. And the U.S. leads in many fields of research directly because of this support.

This support has also had several other characteristics that have been important. "As I have talked to individuals around the world, I have emphasized the fact that we have a meritocracy in our research funding and peer review as cornerstones of that support, that have been key."

What will happen in the coming years, particularly with the seeming inability to control the growth of the federal deficit and the growth of federal entitlement programs could be extremely difficult. "While there remains very strong support [for research], both in the White House and on the Hill, we are coming to a collision point. I think there will be more pressure on higher education than ever, as the amount of discretionary funding in the budget gets shrunk continuously, to protect that piece of it [for research]. I also worry that under the increasing pressure, there will be more and more tendency to opt for earmarks, as opposed to the traditional method of peer review and meritocracy, as the method [by which research support is obtained].

"Should that happen, not only would it damage the research leadership we have had in U.S. universities, but also in the long term it will damage economic growth in this country and put us into a spiral that will be quite unfortunate."

b. Conflict of interest and related issues.

A related federal issue is a concern arising around conflict of interest and the monitoring of conflict of interest.

"Here I see increasingly a collision. While there is great admiration for the relationship that U.S. research universities have had with industry and our

ability to move creative innovations from the research laboratory to industry, where they not only can eventually help people but can also serve as a source of economic growth, that [admiration is facing] increasing concerns about conflict of interest.

“We are going to see increasingly a collision around those things. That collision will come when people say somehow we have to create a completely conflict-free--not a managed conflict situation--but a completely conflict-free environment. That, I believe, will dramatically injure our ability to transition [between the research laboratory and industry] and do the kinds of research that eventually is taken out into the marketplace. That collision will probably get worse and worse as we go along. Attempts to overly regulate [the transition] will hurt our ability to do it.

“I am, by the way, for full and completely open transparency. I am for careful monitoring of conflicts that we know occur. I am entirely in favor of clearly distinguishing whether an individual is acting on behalf of the university or an outside interest, and completely being open and free about that--not only with respect to various officers in Ann Arvin’s role [Dean of Research] and faculty members, but also between colleagues, because I think it’s useful for colleagues to know what outside involvements somebody they may be collaborating with has.

“But I worry that attempts to completely close the door on potential conflicts or the appearance of conflict will create a difficult situation.”

c. Potential regulation of endowments, accreditation, tax status and other issues.

There are all kinds of discussions in Washington about potential regulation of universities in various ways, around issues having to do with accreditation and accrediting agencies, issues about for-profit colleges and whether or not for-profit colleges are actually serving students particularly well, and how to get at that issue with accreditation agencies, for example, as one direction.

“What standards shall we be held to for accreditation? Should universities be forced to demonstrate that they add value in the educational process? And how might we demonstrate that?”

A similar set of discussions is being held about endowment, and spending rules for endowment, driven by some legitimate concerns about the gap between the most well endowed institutions and other institutions and the gap between public and private institutions. “I think [this might lead] to a whole series of regulations which will in the long term certainly hurt not only Stanford but higher education as a whole. They might include things like regulating whether or not people get tax deductions for giving to certain institutions, depending on how wealthy the institutions are, or giving to higher educational institutions at

all. [A related issue has] to do with endowment payout, although obviously we have had the financial tsunami here to indicate clearly that conservative endowment payouts probably are a good thing.

“Another issue is transfer units. One thing that’s been talked about is mandating that you give credit for transfer units when students transfer, independent of a review of whether or not the courses meet the standards that we would uphold here at Stanford.”

2) Cost containment and efficiency.

“Let me see if I can explain this from the viewpoint of what’s changing in terms of affordability and the family dynamics.

“As most of you probably realize, for many years tuition has gone up faster than inflation. It’s gone up faster than the consumer price index (CPI). It’s also gone up a little faster than the wage inflation index, and that’s driven by the fact that higher education inflation has run, on average, one to one and a half percentage points higher than the CPI. So the cost of running universities has gone up faster.

“That [rise in cost] is obviously first and foremost because we are people intensive, and productivity is not an easy thing to get in a university that upholds quality. We all know how to get productivity. All classes shall have a minimum of 100 students--we can increase the productivity of the faculty, but obviously we won’t increase the quality of the outcome.

“The thing we now have to worry about is that a dynamic that’s existed for many years is slowly breaking down. For many years, if you took per capita family income of college bound families and divided it by the number of students, that number was rising quite quickly. It was rising because per capita incomes were going up and family size was coming down.

“That now is under assault, particularly for middle class families--and middle class families will be where the pressure comes from—[as they] will have an increasingly difficult time affording college tuition. You can see how this is going to play out. The rise of student debt, particularly in private institutions, but also in public institutions (although not as fast in number, or as large in number), [can’t continue]. If you look at many private institutions that don’t have need-blind admissions, you see how quickly student debt is going up. Realistically the notion that students are going to carry \$40-, \$60-, \$80,000 of debt coming out of an undergraduate degree program is just not sustainable. [Such a high debt] closes out many different kinds of career opportunities.

“We will have to think creatively how we can begin to constrain our costs so that we don’t price ourselves out of the market over time. For an institution like Stanford that has such a large number of applicants and an aggressive financial aid program,

for us it's more about the public perception [that we are unaffordable], but the public perception could come back to haunt us in lots of difficult ways. We have managed to maintain affordability by increasing financial aid, but that is not a solution that all institutions can achieve."

3) Internationalization and globalization.

"The world has certainly changed, and, as I have been reminding our freshmen every year for the last few years, they have to think of themselves as global citizens. They have to try to get out of this country and spend part of their educational formative years somewhere else in the world, because once they graduate, that is the reality in which they live. Whether they go into the high tech or science sector where so many things have now become international, or whether they go into government, or into the nonprofit sector or into the academy, they will be much more international beings than most of us have had to be during most of our existence. Look around the world and just think how much things have changed for all of us in the last 20 years in terms of the international dimensions of the work we're doing. I think that will be absolutely true for our students.

"There is a lot happening on the international side, starting with attempts to get a larger fraction of our students to go abroad and think about experiences abroad. I'm delighted to see Bob Sinclair here, who has just taken over as the new Director of the Overseas Study Program, and we will be thinking creatively about how we encourage more and more students to get that kind of experience.

"But it goes beyond that. It goes beyond just sending our undergraduates off campus. It goes to an increasing number of international collaborations. It goes to an increasing number of institutions that are looking to places like Stanford and our peers for building various collaborations. I think we get a proposal probably once a week to open our branch campus in your favorite part of the world, but also including places in the world that I can't imagine are anybody's favorites--but they would like us to, too.

"I remember a number of years ago, we had a trustee retreat, and we had asked Rick Levin [President of Yale University] to come out from Yale and join us. He posed a very interesting question--is university one place? And if so, will it always be one place? Or, in fact, is the world changing in such a way--driven by technology, driven by globalization, driven by all these issues--is the time is coming to think about a university as physically being in more than one place?

"I think that's a provocative question. Most of the great private institutions are similar in size to ours. Whether one can create an institution of larger size--how one might do that, what kinds of relationships or partnerships might be appropriate? But it's clear the world is changing.

“We will now be in a situation where a university-- a newly created university-- will have the second largest endowment of any university in the world, and that’s a university in Saudi Arabia. That’s an incredible change. That university built its endowment in the period of a few years, an endowment that took Harvard 300 years to build.

“So the world is changing very quickly. How will that dynamic play out, how we should be thinking about it? There is some history here. Stanford has had a long relationship with parts of the world where it has helped build educational infrastructure, in Taiwan, Korea and other places. So there are a variety of different roles we can think about playing. We are going even so far as thinking about some day considering a branch campus somewhere.

“I should point out that on this issue of branch campuses, I have, and I think we should have, no interest in setting up a storefront that has our name on that somehow allows our name to go on the degrees conferred but offers anything less than a Stanford educational experience. We should not do that. We should have no interest in that. There is nobody who can pay me enough money for me to think about doing that.

“That is not the model we’ll pursue, but I think we have to think deeply about this question as things evolve and as the world changes and with the population dynamics that are occurring, as we see the rise of Asia, because it is clearly the new world. We’re lucky to be positioned on the Pacific Rim and to have lots of friends I think we can engage with in that part of the world to think about.”

4) Science and mathematics education.

a. K-12

“First of all, here is my view of the quality of science, math, education in our K-12 system. We have problems in K-12 education overall, but we have acute problems in the science and math area. I think one of the reasons we had such a difficulty attracting more citizens into majors in science and engineering is the quality of our teaching. We need to figure out how we are going to put people who have better training and better education in science and mathematics into our K-12 system. [We need to] get away from the situation where we have large numbers of teachers without adequate background teaching [those subjects].

“How do we fix that problem, begin to address that, and think about whether or not we can improve it? I think for better or worse--well, for worse--the A.P. [Advanced Placement] system we have created is actually doing a disservice to students. It is not a good way to prepare students. It’s a terrible way to get them excited about continuing their studies in science, engineering and mathematics.”

b. International students

“Related to that issue is that partly as a result, we have imported talent from around the world, particularly in our graduate programs in engineering, physical sciences, but across the university. It’s been a wonderful blessing. The U.S. has been fortunate enough to bring in great talent from around the world. Whether or not that will continue and whether we can continue to rely on it [is the question]. [It will depend in part] on all kinds of problems about visas, which we have largely managed to deal with up to now, and also on whether schools in their home countries will try to keep their students.

“We have to think about that and what that reliance is while we begin to think about our own K-12 system.

“I think we should still continue, for as long as we can, to attract the best and brightest. I [have in mind what] Tom Friedman says [about international students]: you should staple a green card to their diploma. But not everybody in the United States is ready to take that radical a position.”

[Laughter]

“After all, we have only invested \$100,000 to \$200,000 in this Ph.D. who’s graduating—and now we should send them out of the country quickly? [This idea] seems silly to me.”

c. Scientific literacy

“A third point is a long-term concern I have about whether we are doing an adequate job in the arena of scientific literacy. Are we adequately preparing our students--and of course this applies globally, not just at Stanford but also at institutions around the country--to be conversant citizens in a world where so much of what goes on is shaped by science and technology? Are we preparing them to really understand the arguments of global warming and environmental issues so that they can at least be conversant? Are we preparing them for discussions about genetically based medicine or about stem cell technology? Are we preparing them to think about the risks in the various ways in which we get energy in this country, to realize that drilling a hole 5,000 feet below the surface of the ocean may be a lot more dangerous than building a nuclear reactor down the street from you?

“We need to help people understand these things. We need to prepare our own students. I think higher education as a whole has not done a good job.

“We had a great but failed experiment many years ago in Science, Mathematics and Engineering (SME). It’s time for us to rethink that and how we prepare

individuals for a world in which science and technology has shaped so much of how we live.”

5) The plight of the public institutions

“I think we all realize our public institutions are in difficult times. The combination of, first and foremost, the budget reductions they have seen, and the ongoing nature of those reductions, is obvious. This is not a one-time phenomenon, particularly in states like California or New York, whose long-term budgets will be challenged for years to come. Coupled with the difficulties of managing public institutions, it’s just very, extremely difficult.

“As I once said to my colleague who was Provost at Berkeley, ‘you have to do twice as good a job as we do just to keep even.’”

“As a result the U.S. will be poorer. California will be poorer. The Bay Area will be poorer. Institutions like Stanford will be poorer if the long-term health of a great public system like the University of California system continues to be assailed and the quality of that institution goes down. It will hurt all of us in the long term.

“We don’t have a lot of power over that [situation]. We [only] have the power of commiserating with our colleagues and perhaps trying to remind people in power in Washington of the importance of these great public institutions. It’s critical to remember that the vast majority of people who get a college degree in this country get it in a public institution, and we need to ensure that they remain a vibrant and as great as they are.”

That ended President Hennessy’s remarks. Chair Goldsmith opened the floor for questions.

Professor Jennifer Summit had the first question. “I have been very encouraged and inspired, and many of my colleagues have also been encouraged and inspired, by your efforts, particularly this year, to revive attention to the academic humanities. Can you comment on where the economic humanities fit into your vision of not only the challenges for higher education but also how higher education can begin to meet those challenges?”

President Hennessy replied, “Let me say first and foremost that I am a vigorous believer in the notion of a liberal arts education and that it has a core where humanities are not the only part but a very central part of that core--and we want to maintain that. I think it’s what we have always envisioned our education as being, and I think in the discussions we had yesterday with Jim Campbell and Harry Elam, representing the SUES Study on Undergraduate Education, it’s quite clear we believe that and we want to try to maintain a common undergraduate core across the university for all our majors.

“I do worry about one thing in particular. I worry that we have lost--not just at Stanford but I think globally at many institutions--the notion of a classical liberal arts degree. [The idea used to be that] students would come and likely choose a major in some part of the humanities—or it might be a closely related discipline--with the notion they are going to have a vibrant, intellectual experience in that [major] and then they are going to decide what to do for their graduate work. They are going to decide that they are going to go to law school, to business school, or they are going to take a year to prepare themselves to go to medical school.

“I think we have lost that kind of student. The heavy career focus has partly driven that loss. The competitive situation to get into an institution like Stanford and the realization that it’s a gigantic investment. Even if you are getting financial aid, it’s a gigantic investment.

“I think some thought should go into how we restore that [track] and encourage some students to stay in that track. We should think carefully about what we might do in terms of outreach and in our own programs to encourage that kind of students to realize that there’s more than one path, and that in the end, an undergraduate education is, as I remind the freshman, a foundation for life. It’s not just a key to your first job.”

Professor Anat Admati commented, “Following up on your point about A.P. courses, it seems to be in the hands of colleges of Stanford’s type to impact that directly through admission and other statements.”

President Hennessy agreed, “We don’t like the curriculum in particular and the method of teaching that curriculum. We have a difficult balancing act here: without some acknowledgment that students have completed some science level courses and some math level courses at high school, we will not have majors in some disciplines at Stanford anymore, because it will just be a ‘bear’. If you [choose] a major in engineering and you haven’t had some exposure to calculus and some exposure to physics and you [must satisfy] our core GERs [General Education Requirements] plus the engineering requirements, forget about sleep. It’s not an option in your life for the next four years and it blocks out many other things. It says to all our engineering students, ‘you cannot go abroad because the way we have laid out engineering majors.’ Already too many of them take that view that it’s too hard to do.

“We ought to think hard about how to balance [the A.P. options versus the requirements to satisfy certain degree requirements]. I think probably [the solution is to] participate more in how A.P. is structured, how the exam is structured, and how it’s taught. I still remember when they put the computer science A.P. in place. Basically it was a test of whether you understood the syntax of the programming language. This is teaching the absolute wrong thing to students.”

Professor Sheri Sheppard expressed her gratitude. “John, I appreciate that you continue to show that engineers can be really good orators, so thank you for that image. There are five other items on this list, and I would love to hear your thinking on them, but of

course we don't have time here, so I guess this is a process question. How can we hear them at some point?"

Chair Goldsmith reminded Professor Sheppard that her reign as Senate Chair ended this day.

President Hennessy suggested that Professor Sheppard talk to next year's Senate chair.

Chair Goldsmith agreed, "Have them twist his arm."

Professor Sheppard pressed the President, "So would you be willing to come back?"

President Hennessy responded, "Sure. I will be here next year. That's currently the plan, anyway."

[Laughter]

Professor Olav Solgaard, asked the president about internationalization and globalization. "I think we made some relatively profound changes to our need-based financial aid to international students a few years back and I would like to hear from you how that has changed our student body and will continue to change it."

President Hennessy replied, "We have slowly but surely increased the number of international students on our campus. Some of that has come by some limited success in fund-raising for international student aid. It is not an easy fund-raising chore, especially because, you get lots of [donors] who say, 'I want to give but only for students who come from my country or my city or my section of the country', and that makes it difficult. But we have been slowly increasing that aid.

"Given the financial aid dilemma we have with U.S. students, that [goal of increased financial aid for international students] is more or less on hold. I had set a goal that we might be able to get to need blind admissions. I said five years ago I'd be able to do it in ten years. I don't think we are going to get there.

"There are some difficult things you need to understand about international financial aid. The biggest one is that the international student population, particularly the students who come to Stanford, are from Asia. [While] our U.S. population is all across the income spectrum, the international population of students is bimodally distributed by our measures of how much financial aid they require. This is easy to understand. If you are coming from China and you make \$50,000 a year, you are in the upper one-tenth of a percentile of family incomes in China. But guess what? You get full tuition, full room and board, and you get an airplane [flight] back and forth, but you can't do work study because you have a student visa. So the cost to support that student is about \$60,000 a year. That's what particularly makes it more difficult to raise international student financial aid.

“Nonetheless, I think we have managed to increase the number of international students. I think we’d like to see it go up a little more, even, in the next few years. And we’ll do that gradually as we can make more progress on raising international financial aid.”

Professor David Burke noted, “Many of these problems come from a common theme that a research university is engaged in research and education that, by its nature, yields added value on a long-term scale, whereas so many of the activities that come out of Washington or Sacramento are aimed at trying to see added value on a short time scale, whether that’s in research where you want to find some metric for the return on the dollar for the research, or whether it’s education. You raised the question of accreditation about some perceived added value to education. How do you balance the need to present and show outwardly a short-term return with what really is a situation where your real deliverables are long term in nature? And how can people in the room here who have to deal with outside funding agencies or groups, line up with that?”

President Hennessy agreed, “I think the answer is you can’t. You have to marshal the best data to support the long-term objective. Many years ago I worked on a study for the national research council on this issue of evaluating investments that had been made in information technology. The most effective thing we did in that whole study was to take an historical look back to show how early investments in computer networking had led to the ARPANet [Advanced Research Projects Agency Network] and then the Internet; how early investments in computer graphics had led to all the incredible progress there; and how early investments in what was then called the VLSI [Very-Large-Scale Integration] program had led to incredible breakthroughs in terms of microprocessor technology and other areas.

“That’s the only way I think we can do it. We have to do it that way and we have to look at that ex post facto analysis in order to demonstrate the [effectiveness of investment in research]. We have to remind people in Washington that this system of higher education, of interweaved research and education, of students being here as students and active researchers at the same time—[has earned] the admiration of the world. It is the system that every country in the world would get if they could get it overnight.”

Professor Jeff Koseff commented, “John, in light of what we have been reading and hearing about over the weekend in terms of the potential expansion of the PAC 10, is there anything you can add just briefly perhaps on item 10 [not discussed by the President], the divergence of big time athletics and academics? Or is it too early to say anything?”

President Hennessy responded, “It’s a very difficult issue. There are many things intermixed here that come up—from the difficulties in men’s basketball to challenges of coach salaries accelerating at incredible amounts, to the professionalization of things,

to the notion that at least some institutions believe a successful outcome is a pro career whether or not it comes with a degree.

“I’m all for students who are successful in their athletics, finish with a degree and then go on to a professional career--and eventually come back. I note that Mark Matson, our great basketball player, is coming back as a student in the business school this fall. That’s terrific. That’s exactly what we ought to hope for people. But that’s not the model everywhere, Jeff.

“Today, we released the academic progress reports for all the NCAA schools. It was an amazing report. I’m proud to say that Stanford had seven sports with perfect scores, a perfect thousand out of a thousand, and another six sports with 990 points out of a thousand. Our football team had the highest APR [Academic Progress Rate] score in the PAC 10 and eighth highest in the country.

“So there are ways to do this right. I think we have to continue to push in that direction. Right now there is a lot of pressure on intellectual programs everywhere. Every school that is not a major powerhouse in some sport is losing money on its athletic programs. Right now we are at a key point where schools may have to kill a significant number of sports, which will be Olympic sports because they will not ‘high money’ sports. In the end, getting a little more money in the system, if we can protect the validity of the academic component, is important.

“There’s a new Knight Commission report coming out next week. For the most part, most of the reforms argued by the Knight Commission have slowly and in some form crept into the NCAA. We have a new president of the NCAA coming in, Mark Emmert, former president of the University of Washington. I think there will be a good opportunity for him to try to grapple with this problem and grapple with the growing challenges that exist here. Some of the things we’re simply prevented from doing by antitrust law. Otherwise, the university would probably do some things.

“If I were [in Mark’s shoes], I would try to fix men’s basketball first. I think “one and done” [one year college, then turn professional] is the worst. We are dealing with the worst possible situation when we have “one and done” in men’s basketball, and we are complicit in becoming the farm team for professional basketball. That’s why the graduation rates are difficult. We do much better in baseball, which requires three years, or football. Changes like that I think would be healthy.”

Chair Goldsmith announced her prerogative. “I am going to ask the last question. It’s on number 9, multidisciplinary research. In an era where research is becoming more and more interdisciplinary, how do you balance disciplinary, interdisciplinary, and multidisciplinary research? And in particular is the structure of the university of departments the right structure?”

President Hennessy answered, “The great thing about a university is that decisions about that balance are in the hands of the people who should control it; namely, the

faculty. It will be the faculty that make the decision of how to balance these things. Whether there are forms of collaboration that lead to higher impact, can lead to work that's really important--faculty will make that decision, and that's exactly where it should get made. Our goal is the structural issues. How do we ensure that the collaborations that faculty see as productive, as interesting, and as leading to new forms of innovation and discovery, can be encouraged and appropriately supported? What about research funding? Questions like that.

“The question of what to do about departments comes up, and the Provost and I discuss this periodically. I think our current feeling is that departments have worked very well as the guardians of quality. We want to maintain that, because the quality of the faculty is the starting point for quality in this institution. You begin with quality faculty, they bring great students. Other terrific things happen from then on. We need to support and continue that [tradition], and right now we believe the departments play a key role in ensuring that we do. That doesn't mean we need to think a little differently, and we are engaged, quite frankly, in an experiment. Our experiment is trying for better or worse what you might characterize as a 'matrix structure'. We have departments, but we have some interdisciplinary institutes, and they overlies the departments. There may be people who are more policy oriented who have a position as a fellow in an institute and a faculty position somewhere else; we are working on that model and trying to understand if that is sufficient, or do we need other things, do we need a small number of appointments outside of departments, and take it a step at a time.

“One of the things we shouldn't be afraid of as an institution is to do experiments with how we think about the organization of the institution, how we do our work. Universities tend to be very conservative. Maybe not quite as conservative as the Catholic Church, but close, close.”

[Laughter]

President Hennessy added, “Of course, probably one of the reasons we have been around so long is that we don't easily embrace fads. We have a good set of core values and we stick to them. That's a wonderful thing. But it can't be at the cost of never trying something different. We have to be open to those experiments. We can conclude that they didn't work--and that's okay. That's, I think, the approach that we would be best served to try. And we'll see how it proceeds.”

Chair Goldsmith responded to this fundamental conclusion by the President by saying, “Thank you very much.”

[Applause]

VI. Unfinished Business

There was no unfinished business.

VII. New Business

There was no new business.

VIII. Adjournment

After a motion and a second, the final meeting of the 42nd Senate was adjourned at 4:30 p.m. *sine die*.

Respectfully submitted,

Rex L. Jamison, MD
Academic Secretary to the University
Professor of Medicine, Emeritus