THE GEORGE WASHINGTON UNIVERSITY
Washington, D.C.

MINUTES OF THE REGULAR MEETING
OF THE FACULTY SENATE HELD ON
APRIL 10, 2009 IN THE MARVIN CENTER, ROOM 403

Present: Executive Vice President for Academic Affairs Lehman, Associate Registrar Bilko and Parliamentarian Charnovitz; Deans Burke, Dolling, and Futrell; Professors Benton-Short, Castleberry, Cordes, Corry, Garris, Griffith, Harrington, Helgert, Hotez, Johnson, Lipscomb, Miller, Pagel, Parsons, Plack, Robinson, Simon, Wilmarth, Windsor, and Wirtz

Absent: President Knapp, Deans Barratt, Brown, Lawrence Phillips, Reum, and Scott; Professors Artz, Becker, Biles, Costanza, Englander, Galston, Marotta, and Rycroft

The meeting was called to order by Vice President Lehman at 2:15 p.m.

SHORT RECESS FOR THE PURPOSE OF HAVING A GROUP PHOTOGRAPH TAKEN OF THE 2008-09 FACULTY SENATE

A short adjournment was declared in order to have the annual photograph of the Senate taken.

APPROVAL OF THE MINUTES

The minutes of the regular meeting of March 13, 2009, were approved as distributed.

INTRODUCTION OF RESOLUTIONS

Vice President Lehman requested and received unanimous consent to introduce Resolution 08/4, A Resolution of Appreciation, for Professor Wilmarth’s distinguished service as Chair of the Senate Executive Committee. Vice President Lehman read the Resolution aloud and presented it to Professor Wilmarth, who expressed his appreciation for the laudatory sentiments. A round of applause followed. (The Resolution is attached.)

REPORT ON THE GRADUATE SCHOOL OF EDUCATION AND HUMAN DEVELOPMENT

Dean Mary H. Futrell distributed copies of her PowerPoint report (the report is attached). The report begins with an overview of the Graduate School of Education and Human development (GSEHD), including the School's vision and mission statements, and outlines the three academic departments in the School, the six degrees offered, and campus locations in Washington, D.C., Virginia, and Maryland, as well as Singapore and Hong Kong.
Dean Futrell reported on highlights for the School, including national recognition in *U.S. News & World Report*, which ranks GSEHD 29th among the 270 U.S. graduate schools of education nationwide, and 10th among private graduate schools of education. The School also ranks 6th among private, accredited graduate schools of education. The rehabilitation counseling program ranks 6th, the Education Policy program ranks 19th, and 13 programs are nationally recognized by their professional organizations.

GSEHD also ranks 10th in funded research among private graduate schools of education. Its external funding has steadily increased from $10 million in 1995 to $15.1 million in 2007, and as a result it is among the top GW schools in attracting external funding.

The report also identifies the four entities through which GSEHD is accredited. All three of the surrounding jurisdictions, D.C., Virginia, and Maryland require institutions to be accredited in order for teachers to be certified within their respective states or districts.

Also described are the numerous partnerships in which the School is involved. The appendices to the report present this information in comprehensive detail, listing partner organizations, foundations, and associations, private corporations, federal and state governments, nongovernmental organizations, school districts -- both public and private -- as well as partnerships with GW schools and other universities.

GSEHD's position of leadership in teacher education is well established through its participation in the national Board for Professional Teaching Standards. GW’s GSEHD was selected as one of the first universities in the country and the first in this area to be part of that initiative, in which it has participated since 1993. The program supports more than 400 teachers and GSEHD's success rate is higher than the national average. The national average is 48%, and GW success rate is about 60%. Chi Sigma Iota is a fraternity started by GSEHD counseling students which has now achieved national recognition. The School also participates in the Capital Education Partnership, which is part of a national organization called the Holmes Partnership. This brings together Universities, school districts, and professional organizations to work together to improve the process of education in our schools. The Holmes Scholars (part of the Holmes Partnership initiative) is also focused on trying to enhance diversity within the professoriate.

Over 300 people now participate in GSEHD’s Educational Symposium For Research and Innovation, which was started as a forum through which students could talk about their research and demonstrate their scholarly achievements. Faculty and alumni also participate in the symposium through sponsorship of student presentations. The School also holds a conference on human and organizational studies every summer in conjunction with the Institute for Educational Leadership. The whole focus of this conference is on federal policy and how it impacts what graduate schools of education do on a daily basis. The National Capital Language Resource Center is another effort in which the School participates that focuses on helping people who speak foreign languages pursue their interest in learning to speak English.

Dean Futrell presented current statistics about regular, active-status faculty members in the school. There are a total of 70 full-time faculty, of which 47 are tenured or tenure-accruing, or roughly 67%. There are 24 contract faculty members, which means that about
32% of the School's full-time faculty members are not tenured or tenure-accruing. 57% are female, 43% are male, and 16% are minorities. In terms of the school’s progress in increasing tenure-accruing faculty lines to include at least 75% of all regular, active-status positions, Dean Futrell reported that since 2003, when only 59% of the School's faculty were in tenured or tenure-accruing positions, progress has been made in moving toward compliance with the Faculty Code, and the School will continue work to achieve this goal.

The report describes the 12 research centers and institutes with which GSEHD is involved. These are nationally known and they are responsible for bringing in most of the research funding the school receives.

In the area of Trends, Challenges, and Priorities, the report documents that in 2005 GSEHD enrolled 1,714 students. Four years later, the school has experienced a 24% increase in this number -- presently 2,122, most of them in Master's Degree programs. The School's retention rate is much higher than the national average of 50% with GSEHD retaining approximately 65% by comparison. There is a strong market for GSEHD graduates in the D.C. metropolitan area, where there are over 65,000 teaching, counseling and administrative positions in the neighboring eleven school districts. As an example, last year in the elementary education program, every GSEHD graduate had a job by the time the school year ended. The School’s graduates also find employment in government, professional organizations, museums, private corporations, universities and non-profit organizations.

Dean Futrell’s report outlines Trends in Education and Human Services Fields, which include redefining education in the 21st century to ensure that students are equipped with needed skills, particularly in view of increased social and economic globalization. A greater emphasis on technology is redefining the paradigm in this area. In fact, one of the fastest growing groups using technology today are not adults, but two to five-year olds, and thus, it is mandatory for GW’s graduates to become technologically proficient, and for schools to be modernized to reflect this trend. Discussions are underway about the possibility of establishing a virtual high school at GW, which reflects a national trend where every state has at least one of these. Lastly, the public is demanding evidence-based research rather than anecdotal research. This ties into the accountability movement, which Dean Futrell said she expected would continue and expand.

In terms of near-term challenges, the School aspires to carry out its vision and mission, and to become one of the top 25 schools of education and human development in the U.S. While continuing to enhance the quality of its programs, GSEHD will endeavor to devote additional resources to marketing in order to attract and recruit more students. Sufficient merit aid must also be made available, so that GSEHD can compete on a level playing field with other educational institutions. These initiatives, coupled with continued efforts to ensure that GSEHD’s programs are responsive to 21st Century challenges, will require constant evaluation of the School’s programs to make sure they are structured to be reflective of the changes in our society. The School also needs to make sure that faculty members’ skills are up-to-date and that the School has the resources to support their efforts.

With respect to long-term priorities, the goal of reaching the top 20 in national rankings is one the School hopes to achieve by 2020. The School also aspires to move GW into the ranks of top-tier research institutions through continued and enhanced facilitation
of faculty research and scholarship. Faculty members are receiving release time to support them in their efforts to identify sources of funding, develop their research agenda, attend conferences, and otherwise enhance faculty productivity.

Because GSEHD is preparing graduates to go into “modern” facilities, and to teach in a modern society, the School needs to model that on campus. Thus, GSEHD is still pursuing the goal of acquiring a state of the art facility to further enhance the quality of its program and provide better support for faculty and students. Last, but not least, the School is working to secure two endowed professorships and obtain additional funds to increase merit-based aid to make tuition more affordable for students who want to attend GW.

Professor Robinson said she thought the information in Dean Futrell’s report was very encouraging. With regard to the increase in the number of tenured and tenure-track faculty members, Professor Robinson inquired what sort of plan the School has to achieve this goal. Dean Futrell responded that a plan was put together several years ago to increase the number of tenure-accruing faculty positions to 75% of the total, and that GSEHD requested 18 additional tenure lines in order to accomplish this. The School has made progress and has now secured 11 of these lines. At the same time, the number of GSEHD students has increased by 24%. When faculty are added to accommodate these extra students, the percentages drop down, making this something of a moving target. The School is working with Vice President Lehman and the Budget Office to address that particular concern, but the agenda of achieving compliance with the Faculty Code has not changed.

Discussion followed. Professor Griffith asked if there were a date when the School would be able to reach this goal. Dean Futrell said she hoped the goal would be achieved within a couple of years. Professor Hotez inquired about developments in teacher education. Dean Futrell responded that many undergraduate programs in education are shutting down as students seek more content in the undergraduate programs. They then complete a Master’s program as a professional degree. Many new teachers are now required to complete a Master’s program before they can be hired.

Professor Wirtz inquired if there were a large number of part-time adjunct faculty members in the School. Associate Dean Heddesheimer confirmed that there are, and over time that number has grown. Professor Wirtz also inquired if the School employs faculty members with the title of Professor of Practice. Dean Heddesheimer said it did not. Professor Wirtz observed that one obstacle to meeting the 75% compliance goal could be the number of adjunct faculty who might otherwise be on tenure-track lines. Professor Castleberry pointed out the unique need within the School for faculty members to take on projects of limited duration -- teaching a single course, for example -- for a year, or two, or three. This is because local school systems request these programs, and GSEHD tries to be responsive to these needs.

Vice President Lehman reminded the Senate that when Dean Futrell made her last presentation the same issue had been discussed, and he had pointed out that this is really a budget issue relative to GSEHD that has to be addressed. The School has made significant progress in maintaining a positive margin, and as it has done so Vice President Lehman said that he has been approving requests for tenure lines based on this positive performance. For each new program developed, the School is required to submit a very
detailed business plan for the purpose of keeping GSEHD on the positive side of the margin. Achievement of the compliance goal must be done in a fiscally responsible manner and thus far the process is working.

**PROGRESS REPORT OF THE SPECIAL COMMITTEE ON FINANCIAL AND OPERATIONAL PLANNING FOR THE SCIENCE AND ENGINEERING COMPLEX**

Professor Hermann J. Helgert, Chair of the Special Committee on Financial and Operational Planning for the Science and Engineering Complex (SEC) presented a very detailed and comprehensive Progress Report. [As noted below, this draft Progress Report had only been completed the day before and, thus, had not been reviewed and formally approved in its entirety by the Special Committee. Following the Senate meeting, Professor Helgert convened the Special Committee and subsequently, submitted the approved Report in final form. The revised Progress Report, dated April 24, 2009, is appended to these minutes. For the sake of clarity in these minutes, page citations refer to entries in the revised Report attached.]

The Report begins by describing the historical perspective on the effort to secure improved science and engineering facilities at GW, the need for which was first recognized in the Report by the Commission on the Year 2000 in 1985. This need was also addressed in Resolution 04/1 adopted by the Faculty Senate and accepted by the University Administration, and in the work product [the Hirshman Report] of a Committee headed by former Chief Research Officer Elliot Hirshman. Professor Helgert presented an interim report of the Special Committee at the November 14, 2008 meeting of the Faculty Senate. The interim report is attached to the minutes of that meeting.

Professor Helgert provided a review of the first five Sections of the Progress Report before turning to a description of activities of the Special Committee (particularly those undertaken since the November 14 Senate meeting) in Section 7.

Shortly before the February Board of Trustees meeting, the Special Committee met with Vice Chairman of the Board Nelson Carbonell, who chairs the Board of Trustees’ Committee on the SEC. Information concerning that meeting is provided beginning on page 21 of the Progress Report. At the meeting of the Board of Trustees on February 13, 2009, the Board authorized the University to spend up to $10 million on program planning, design, and benchmarking activities to further develop detailed information concerning the SEC project.

The Special Committee also met on April 1, 2009 with Laurel Price Jones, Vice President for Development, to discuss fundraising strategies for the SEC. That information is described on pages 18 – 20 of the Progress Report. Following his summary of this information, Professor Helgert asked Vice President Price Jones, who was present at the April Senate meeting, if the information correctly summarized her remarks to the Special Committee about fundraising plans for the SEC and she confirmed that it did.

Section 8 of the Report, (pages 24–26) describes significant concerns of the Special Committee. These include examining the rationale for a single building on Square 55 and whether the Campus Plan requires such a choice, and further, “what role the Virginia Campus might play in the expansion of research in the sciences and engineering at GWU.”
The present lack of reliable information on the cost of constructing, equipping and operating the SEC, as well as the need for a major effort to be undertaken to develop a realistic funding plan was also cited. The benchmarking, programming and design phases of the planning process authorized by the Board over the coming year should continue to involve significant faculty input. The future disposition of existing science and engineering infrastructure should be part of the planning process. Perhaps most importantly, there is a need for an overall strategic plan for science and engineering at GWU. Last, but not least, there is an urgent need for both an interim and final parking plan to address the concerns of the Medical School and University Hospital. This parking plan should take into account the costs associated with demolition of the parking garage and the provision of replacement parking spaces.

While a great deal of preliminary work has been done to date by everyone working on this project, Professor Helgert emphasized that no concrete data is yet available on key aspects of the proposed SEC. It is expected that more detailed information will be developed in the next phase of the planning process, with input from the numerous stakeholders. Provided this process adheres to schedule, this information will be presented to the Board of Trustees at the May 2010 meeting, and the Board may at that time approve going forward with the project proposal.

Professor Helgert said he understood that a minority report by members of the Special Committee would be presented at the conclusion of his Report. He also offered to provide, upon request, a copy of the PowerPoint slides he employed in presenting the Progress Report. Discussion followed.

Professor Griffith asked if zoning approval for the SEC was contingent on the University actually replacing parking that would be eliminated by the construction, or if GW must simply submit a plan. Professor Helgert said he did not know the answer to this question.

Professor Cordes asked about the status of the Progress Report, as it had just been completed the previous day and had not been approved by the Committee. Professor Wilmarth said that the report in its present state was only an informational draft and did not represent the official report of the Special Committee. Professor Cordes said he thought it was odd that the draft Report did not mention the original plan for financing the SEC. Because there is really not that much slack in the University’s Operating Budget, clearly the University has to come up with new sources of revenue to fund the building. President Knapp had been quite clear as early as last summer about the “three-legged stool” approach to fund the facility: payout on the endowment from the development of Square 54, fundraising/philanthropy, and increased indirect cost recovery from research in the facility. While it would not be unusual to use reserves or debt initially to fund the start-up of such a project, there should be a reasonable prospect that additional sources of revenue will be generated to pay back these advances rather than incurring an additional annual charge for the debt financing. The idea of there now being “six pillars” under consideration to finance the SEC, i.e., the addition of the use of reserve funds, additional debt, and increased cost recovery for equipment in the facility (pp. 16 and 17 of the Special Committee's report), has not been discussed by the Committee. Professor Helgert reiterated an earlier point he had made, that it was his personal conclusion, based on trying to understand how this $250 million project and its associated $6.3 million annual operating cost could be funded, that
the success of the "three-legged" approach was highly uncertain, and that it was likely that some acceptance would be required that the University would take on more debt. [These cost estimates were drawn from a report by Professor Cordes to the Faculty Senate at the November 14, 2008 Senate meeting.]

Professor Simon said he thought that Professor Helgert had done an excellent job of summarizing what is known about the SEC project, and more importantly, what is not known. There is no hard data at present concerning the building's costs or funding sources, as pointed out by Professor Helgert. A short discussion between Professor Simon and Dean Dolling (SEAS) followed on the uncertainty of predicting costs at this point for such a large project. Discussion also followed between Professor Simon and Vice President Lehman about present indirect cost recovery rates. Professor Simon also commented on the parking issue, saying he would like to know where he would be able to park when he comes to the University Hospital at 2:30 a.m., or where other physicians would be able to park if they find, because of clinical emergencies, that they can't leave when expected but have to be at the hospital until late in the evening. In addition, patients cannot be expected to park at the Kennedy Center, nor can they be expected to park three blocks away. Reasonable solutions for the parking problem must be found. Professor Simon expressed a strong preference for hard data rather than just reassurances from the administration.

Vice President Lehman reminded everyone that this project is still in the planning stage, in which all of the different alternatives are being explored, and that speculation on the parking issue at this point is premature. All of the information developed during the planning process will be shared. Professor Simon said he was concerned that by the time the plan is shared, it may be too late to effectively make any changes.

Professor Wilmarth said he thought it would be helpful to refer to the minutes of the Senate meeting held on December 12, 2008, at which thirteen questions about the SEC were posed to and answered by Executive Vice President and Treasurer Louis Katz, including questions concerning funding sources for the SEC. He read the second question and Executive Vice President Katz's response, as set forth in those minutes:

President Knapp has previously stated that the principal sources of funding for the SEC will be (i) revenues from Square 54, (ii) indirect cost recoveries from sponsored research conducted at the SEC, and (iii) contributions from donors. President Knapp has also stated that the University will not finance the SEC by using tuition revenues from programs that are not designated for inclusion in the SEC.

Please confirm that the foregoing statements are consistent with the University's plans for financing the SEC.

Vice President Katz responded in the affirmative, confirming that the President's statements were consistent with the University's plan for financing the facility.

Professor Wilmarth said that he was greatly concerned that, rather than following the course outlined by President Knapp and confirmed by Executive Vice President Katz on
December 12, the University appears to be moving back toward the building strategy followed by the Trachtenberg administration, which essentially was to build, rely on debt, and then draw on tuition to pay off the debt. He added that this way of proceeding is no longer feasible in light of the operating budget constraints described by Professor Cordes, especially since the SEC is not the only pending project requiring funding. At least two other very large projects are in the planning stage: a new building for the School of Public Health and Health Services and a new Medical School (or substantial renovations to existing facilities). Professor Wilmarth reminded the Senate that, at the December 12 meeting, Vice President Katz estimated that the combined cost of those two projects would be similar in magnitude to the proposed SEC. Professor Wilmarth said that there is simply no room in the University’s operating budget to build the SEC based upon debt, other than perhaps (as suggested by Professor Cordes) temporary debt that can be repaid quickly through fundraising or increased indirect cost recoveries. Any plan that would involve taking on long-term debt, and expecting to pay for that debt from future tuition revenues, must be rejected because it would not be a viable option for the University.

Professor Wilmarth also said he shared Professor Simon’s concern about the projected timeline for the project, because it appears that concrete information will not be available until March or April of 2010, and yet the Board of Trustees will probably be asked to give final approval for the SEC in May, 2010. The whole point of the Executive Committee’s action last May in establishing the Special Committee on the SEC, with direct links to the administration, was to make sure that all of the relevant planning information about the project was made available to the faculty in a timely manner. The Executive Committee concluded that such an approach was essential in order that (i) the faculty could provide appropriate input to the administration and the Board of Trustees, and (ii) the faculty, the -administration and the Board of Trustees could reach consensus on how the project should be accomplished. However, if the faculty is suddenly told next March or April that the Board plans to approve the project in May and that a major portion of the SEC’s costs will be funded through debt and tuition revenues, there will almost certainly be great controversy and dissension among the faculty, and this is exactly the situation that the Executive Committee sought to avoid by establishing the Special Committee.

Vice President Lehman clarified that April 2010 is a target date by which time he and Vice President Katz hope to have assembled final information on all the issues involved in the SEC project. Approval of the project by the Board is not a foregone conclusion, and the Board’s approval will not be sought until there is a full understanding of the manner in which the building is going to be financed.

Discussion followed by Professors Hotez, Garris, and Windsor. Professor Hotez said that it seemed to him the possibility of building on the Virginia Campus was a simple solution, as the cost would be potentially less and the parking issues would evaporate. He asked if there has been any serious thought given to assembling cost estimates for locating the SEC on the Virginia Campus. Professor Helgert said that the Special Committee is concerned that this issue has not really been studied and it would be very worthwhile to investigate.

Since Professor Helgert was one of the first coordinators at the Virginia Campus, Professor Garris asked about the role of indirect cost recoveries in helping to fund the Virginia Campus. Professor Helgert responded that his experience at the Virginia Campus
began in 1991, and when it opened, initially there was a very poor enrollment. The budget was largely funded by research, including a substantial level of indirect cost recoveries through the National Crash Analysis Center and other projects there. Gradually the enrollment grew to supply a significant percentage of the budget as well. He said he was not familiar with the Virginia Campus budget currently, but that if he had to guess, he said he thought Associate Vice President Craig Linebaugh would confirm that indirect cost recoveries provide a significant portion of the overall income level.

Professor Garris asked how effective indirect cost recoveries as a pillar of support were on the campuses Professor Helgert and other members of the Special Committee visited. Professor Helgert responded that there were generally two approaches to research activity. One was the assignment of space on a competitive basis, where the facility was viewed as entrepreneurial with the dual purposes of raising significant funds for the institution and enhancing the institution’s research environment. The other approach is typified by Indiana University where a major donor was found to basically bankroll the project with the message to the faculty to make the best of it.

Professor Windsor said he did not really see indirect cost recoveries as a serious contributor to the SEC at all, given the magnitude of the project (which is unknown, but will be several hundred million dollars). Because the productive senior faculty are now bringing in 60% to 70% of possible research projects, augmentation of these activities will not bring in significant new revenue. If additional faculty are brought in to increase indirect cost recoveries, then the expense for recruiting and compensating new faculty will mean a substantial investment. Professor Hotez concurred with this observation, since recruiting faculty members who can bring in $5 million in indirect revenue require $15 to $20 million in grant support, and this would involve a substantial investment in start-up packages for new faculty.

Professor Donald O. Parsons, member of the Special Committee, outlined his perspective on a number of apparent factual errors and important omissions presented in the draft Progress Report. He said that he found it troubling that the Administration has decided on a single large SEC building before hard data about the cost and financing of the SEC was available, or expected benefits projected. He noted GW's history under the Trachtenberg Administration, when very healthy operating surpluses were achieved by limiting educational expenditures, claiming financial crisis, and delaying faculty and staff salary raises. Operating funds were used on building projects, either through debt service expense or the sequestration of funds in reserve accounts which, when unspent, were directed to the capital budget.

At two points during Professor Parsons’ remarks, Dean Dolling of the School of Engineering and Applied Science and Vice President Lehman objected to information presented. Dean Dolling vigorously contested Professor Parson's assertion that no improvements in facilities for engineering students will be made until the SEC is complete in 2014. Dean Dolling emphasized that renovations and improvements in the School’s facilities are already underway. Vice President Lehman also clarified that research space in the SEC would be awarded on a competitive basis, not on a cash basis, as stated by Professor Parsons. Both University administrators indicated that they thought such inaccuracies should be eliminated from information presented to the Faculty Senate. Professor Parsons expressed a willingness to consider the objections and make clarifications.
as required. Professor Yezer noted that Engineering faculty who were members of the Special Committee had not mentioned any engineering facility improvements when the poor condition of current student facilities was discussed by the Special Committee.

Following Professor Parsons’ presentation, Professor Yezer, who is also a member of the Special Committee, outlined several concerns about the SEC project which he believed were not included in the draft Progress Report. These included taking into account, for the purpose of estimating the cost of the project, the expense of demolishing the parking garage on Square 55 and replacing each eliminated parking space at a cost of $40,000 per space. He also commented on what he viewed as the unsustainability of GW’s current 12% operating surplus given the present economic environment. This annual excess of revenue over expense, along with GW’s selectivity in admitting students, is important in maintaining the University’s credit rating by Moody’s. However, in the final analysis, this operating model significantly reduces operating funds that could be used for other purposes.

[Following the Senate meeting, Professor Yezer submitted his minority report dated May 2, 2009, which is appended to these minutes.]

GENERAL BUSINESS

I. NOMINEES FOR ELECTION TO THE FACULTY SENATE EXECUTIVE COMMITTEE FOR THE 2009-10 SESSION

Professor Wilmarth moved the nominations of the following faculty members for election to the 2009-10 Faculty Senate Executive Committee: Professor Lilien F. Robinson, Chair (CCAS), as Chair; and Professors Brian L. Biles (SPHHS), Michael D. Corry (GSEHD), Robert J. Harrington (SEAS), Scott B. Pagel (GWLS), Gary L. Simon (SMHS), and Philip W. Wirtz (SB). The Elliott School of International Affairs (ESIA) will not hold an election to select its two representatives on the Faculty Senate until April 24, and, therefore no candidate was proposed from that School. Professor Wilmarth said he expected that a nominee for election of ESIA’s representative on the Executive Committee would be presented to the Senate at its meeting on May 8. A vote was taken as required; first on the Chair, then on the rest of the Committee, and the entire slate was adopted by unanimous vote.

II. NOMINEES FOR ELECTION TO THE DISPUTE RESOLUTION COMMITTEE FOR THREE-YEAR TERMS COMMENCING MAY 1, 2009:

Professor Wilmarth moved the nominations for election of Professors Ravi S. Achrol, Brian L. Biles, Milos Doroslovacki, and Robert W. Tuttle. Patrick Cook’s nomination was also moved and seconded. Professor Kurt J. Darr was also nominated for a one-year term as Chair. The entire slate was approved.

III. NOMINATION FOR REAPPOINTMENT BY THE PRESIDENT OF THE PARLIAMENTARIAN FOR THE 2009-10 SESSION

Professor Wilmarth moved the nomination for appointment of Associate Professor Steve Charnovitz as Parliamentarian for the 2009-10 Session, and the nomination was approved.
IV. NOMINEES FOR APPOINTMENT BY THE PRESIDENT TO ADMINISTRATIVE COMMITTEES

Professor Wilmarth moved the nomination of the following faculty members to Administrative Committees: University Hearing Board: Professor Ozgur Ekmekci; Marvin Center Program Board: Professor Steven Kelts; Marvin Center Governing Board: Professors T.N. Lee, Frederic Lemieux, Stephen McGraw, and Julie Ryan. The entire slate was approved.

V. REPORT OF THE EXECUTIVE COMMITTEE

Professor Wilmarth presented the Report of the Executive Committee, which is enclosed.

VI. ANNUAL REPORTS OF SENATE STANDING COMMITTEES

No annual reports were received.

VII. CHAIR'S REMARKS

Vice President Lehman wished everyone a pleasant weekend.

BRIEF STATEMENTS (AND QUESTIONS)

There were no brief statements or questions.

ADJOURNMENT

There being no further business before the Senate and upon motion made and seconded, the meeting was adjourned at 5:15 p.m.

Elizabeth A. Amundson
Elizabeth A. Amundson
Secretary
WHEREAS, Arthur E. Wilmarth, Jr. has earned the highest level of respect, gratitude, and admiration of the University community; and

WHEREAS, his term of service on the Executive Committee of the Faculty Senate has reached its statutory limit; NOW, THEREFORE

BE IT RESOLVED BY THE FACULTY SENATE OF THE GEORGE WASHINGTON UNIVERSITY

That the following citation be issued:

Arthur E. Wilmarth, Jr. has provided distinguished service as Chair of the Executive Committee of the Faculty Senate. He has served on the Executive Committee for nine years and has chaired it for two years. Overall, he has served as a member of the Faculty Senate for eleven years. As required by Senate regulations, he now concludes his term on the Executive Committee after three years of consecutive service.

As Chair of the Executive Committee, Professor Wilmarth has provided outstanding leadership to the University by managing the faculty’s role in shared governance with remarkable diligence, skill, and diplomacy. He has also served as Chair and longstanding member of the Committee on Professional Ethics and Academic Freedom and as an ex officio member of four Senate Committees: Athletics and Recreation, Educational Policy, Libraries, and University Affairs. The members of the Senate especially recognize his deep dedication to an effective faculty role in university decision-making, his endless contribution of time to Senate and other university activities, and his collegial respect for the many university colleagues with whom he has worked.

THE FACULTY SENATE OF THE GEORGE WASHINGTON UNIVERSITY

HEREBY EXPRESS ITS DEEPEST APPRECIATION AND GRATITUDE TO

PROFESSOR ARTHUR E. WILMARTH, JR.,

FOR HIS DISTINGUISHED SERVICE

Steven Knapp
President

April 10, 2009
Report to the Faculty Senate
April 10, 2009
Mary Hatwood Futrell, Dean

Leading Innovation through Learning

1904-2009
Areas of Discussion

- GSEHD Overview
- Highlights
- Current Statistics
- Trends and Challenges
- Priorities
Vision

*We aspire to be the premier Graduate School of Education and Human Development by advancing the scholarly, ethical and civic dimensions of the human experience.*

Mission

*Strategically based in the nation’s capital and serving the global community, the Graduate School of Education and Human Development prepares informed and skilled leaders through innovative teaching and learning practices.*

*We believe that continuous self-examination and improvement are fundamental to the education and human development professions.*
Leading Innovation Through Learning

The George Washington University
Graduate School of Education and Human Development

Three Academic Departments
- Counseling/Human and Organizational Studies
- Educational Leadership
- Teacher Preparation and Special Education

Degrees Offered
- Master of Arts in Education and Human Development (M.A.)
- Master of Education (M.Ed.)
- Master of Arts in Teaching (M.A.T.)
- Education Specialist (Ed.S.)
- Doctor of Education (Ed.D.)
- Doctor of Philosophy (Ph.D.) (in conjunction with CCAS)

Campus Locations in DC, VA, and MD, and internationally in Singapore and Hong Kong
Highlights
**U.S. News & World Report Rankings**

GSEHD has been ranked in the top 35 graduate schools of education since 1995. Currently, GSEHD ranks 29th out of 270+ graduate schools nationwide.

* One of two GW schools to be consistently ranked

- 10th among private graduate schools of education
- 6th among private, accredited graduate schools of education
- 6th in funded research among private graduate schools of education
- Rehabilitation Counseling program ranked 6th
- Education Policy program ranked 19th
- 13 programs are nationally recognized by their professional associations
Highlights – External Funding

➢ Steadily increasing
  o $10 million in 1995
  o $15.1 million in 2007

➢ Among the top GW schools in external funding
Leading Innovation Through Learning

Highlights – Accreditation

- National Council for the Accreditation of Teacher Education (NCATE)
- Council for Accreditation of Counseling and Related Educational Programs (CACREP)
- Council for Rehabilitation Education (CORE)
- State Education Agency-Board of Education of the District of Columbia
Highlights – Partnerships: *it takes a village*

- Schools within GW (CCAS, SMHS, ESIA, SEAS)
- Universities (Georgetown, SUNY, GMU, UMD, Johns Hopkins)
- Organizations and Foundations
- International NGO’s (World Bank, Americans for UNESCO)
- Local, state and federal governments in D.C., MD and VA, 11 school districts and various schools

*See Appendix A for a full listing of GSEHD’s partnerships.*
Leading Innovation Through Learning

Highlights – Leadership

- National Board for Professional Teaching Standards (NBPTS) – GSEHD is a national leader in supporting teachers seeking board-certification

- Chi Sigma Iota – counseling fraternity has been recognized at the national level

- Capital Educators Partnership – part of the national Holmes Partnership

- Educational Symposium for Research and Innovation

- Conference on Human and Organizational Studies

- Federal Policy Institute

- National Capital Language Resource Center (NCLRC) Summer Language Institute
Current Statistics
**Faculty:** Regular faculty on staff as of Fall 2008

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<table>
<thead>
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<tbody>
<tr>
<td>Total FT Faculty</td>
<td>70</td>
</tr>
<tr>
<td>Tenure Track</td>
<td>47 (67%)</td>
</tr>
<tr>
<td>Contract</td>
<td>24</td>
</tr>
<tr>
<td>Female</td>
<td>57%</td>
</tr>
<tr>
<td>Male</td>
<td>43%</td>
</tr>
<tr>
<td>Minorities</td>
<td>16%</td>
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Progress Toward Limiting Non-Tenure Accruing Faculty Lines to 25% or Less

<table>
<thead>
<tr>
<th>Semester/Year</th>
<th>Tenure Track Positions</th>
<th>Non-Tenure Track Positions</th>
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</thead>
<tbody>
<tr>
<td>Fall 2003</td>
<td>59% (42 total)</td>
<td>41% (29 total)</td>
</tr>
<tr>
<td>Fall 2008</td>
<td>67% (47 total)</td>
<td>32.9% (23 total)</td>
</tr>
</tbody>
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In 2005, GSEHD planned to search for 18 positions to be filled as tenure track lines between AY 2003-2004 and AY 2009-2010. Eleven (11) of the 18 have been filled or are being searched for Fall 2009 hires.

Academic Affairs has provided GSEHD with two additional Tenure Accruing lines to be included in the Position Control Agreement.
Leading Innovation Through Learning

Twelve Research Centers and Institutes

• The Institute for Education Studies
• Center for Curriculum, Standards and Technology
• Center for Equity and Excellence in Education
• Center for Education and Human Services in Acquired Brain Injuries
• Center for Educational Leadership and Transformation
• Center for Rehabilitation Counseling Research and Education
• Center for the Study of Language and Education
• Center for the Study of Learning
• Hamilton Fish Institute on School and Community Violence
• National Clearinghouse on Postsecondary Education for Individuals with Disabilities
• National Capital Language Resource Center
• National Clearinghouse for English Language Acquisition
Trends, Challenges and Priorities
Enrollment Trends  

*as of fall 2008 census*

Total fall 2008 enrollment is almost 24% higher than total fall 2005 enrollment.
Strong market for GSEHD graduates

- DC, MD and VA Metro Area has more than 65,000 teacher and counselor positions and large, fast-growing school districts.
  - The need for school administrators will also continue to increase.

- Our graduates also fill positions in government, professional organizations, museums, private corporations, universities and non-profit organizations.

- Graduates have proven marketability and are rated highly by employers.
Trends in the Education and Human Services Fields

- Increased globalization impacting the education and human services professions
- Redefining how we should educate in the new millennium to ensure students have the skills, knowledge and disposition they need
- A greater emphasis of technologies on redefining the paradigms of education and human services
- Demand for more evidence-based research
- The national accountability movement continues
Challenges for GSEHD

- Enhance the School’s ability to achieve its vision and mission;
- Continue to enhance the quality of our academic programs;
- Attract and recruit more students by devoting additional resources to marketing and allocating sufficient merit aid;
- Maintain and enhance GSEHD’s national prestige and thus, GW’s reputation; and
- Continue efforts to ensure that our programs are responsive to 21st Century challenges.
Long-term Priorities: 1904 ➔ 2009 ➔ 2050

- Increase GSEHD’s national ranking to within the top 20;
- Help move GW into the ranks of the top-tier research institutions through continued and enhanced facilitation of faculty research and scholarship;
- Acquire a state-of-the-art facility to further enhance the quality of our programs and provide better support for our faculty and students; and
- Establish two endowed professorships and obtain additional funds to increase merit-based tuition support and scholarships.
Thank you.
Special Committee of the Faculty Senate on Financial and Operational Planning for the Science and Engineering Complex

Progress Report

Academic Year 2008/09

April 24, 2009
Introduction

In May of 2008 the Executive Committee of the Faculty Senate established a special committee of the faculty to act as an interface between faculty and administration on matters relating to the prospective Science and Engineering Complex (SEC). The committee, known as the Special Committee of the Faculty Senate on Financial and Operational Planning for the Science and Engineering Complex, hereinafter referred to as the Senate SEC Committee, includes representatives from all Schools directly impacted by the project, namely CCAS, SEAS, ESIA, SB, SPHHS and SMHS. The current membership is as follows:

Brian Biles - SPHHS (Liaison to the Executive Committee)
Alison Brooks - CCAS
Edward Cherian – SB (inactive)
Joe Cordes - ESIA
Linda Gallo - CCAS
Hermann Helgert – SEAS (Chair)
Diana Johnson - CCAS
Michael King - CCAS
Murray Loew - SEAS
Donald Parsons - CCAS
Gary Simon - SMHS
Anthony Yezer – ESIA

The rationale and charge to the committee, as formulated by Professor Wilmarth, chair of the Faculty Senate Executive Committee, are as follows:

"During the [week of May 19, 2008], there have been substantial discussions concerning future plans for the Science and Engineering Complex (SEC). As you probably know, the Faculty Senate endorsed the concept of the SEC in Resolution 04/1, adopted on May 7, 2004. However, the Senate has not been directly involved in the planning process for the SEC. I understand that a committee consisting of senior members of the Administration and members of the Board of Trustees is currently engaged in an intensive planning process for the SEC. Earlier this week, I proposed to President Knapp that a Senate committee should become directly involved in the planning process, and that the committee should report back to the Faculty Senate
Executive Committee and the Faculty Senate as early as possible in the fall semester. President Knapp agreed in principal with my proposal.

"Accordingly, on behalf of the Faculty Senate Executive Committee, I hereby appoint a Special Ad Hoc Committee on Financial and Operational Planning for the Science and Engineering Complex (the "Special Committee")."

I would request that the Special Committee report back to the Executive Committee and the Senate as early as possible in the fall semester with respect to the following issues:

(i) the projected size and scope of the SEC;
(ii) the projected costs of building the SEC and providing the SEC with the requisite equipment and other furnishings;
(iii) the anticipated sources of funding to meet those costs; and
(iv) the projected impact of the SEC on the University's operational and capital budgets during the next several years.

At the November 14, 2008 meeting of the Faculty Senate the committee presented an initial summary of its deliberations and findings to that point in time. The present report offers an update and summarizes the state of the project as of April 24, 2009.

The report is divided into 8 sections.

Section 1 discusses the historical perspective.

Section 2 lists the various project teams and committees involved in the planning and development process.

Section 3 offers a summary of the visions, guidelines and strategies.

Section 4 presents the known parameters of the Science and Engineering Complex.
Section 5 is a summary of the plans and development activities to the present.

Section 6 offers preliminary data on costs and methods of funding the SEC.

Section 7 describes the activities of the Senate SEC Committee since its inception.

Section 8 provides a summary of the Senate SEC Committee’s concerns on matters of planning and financing the project.

Appendix A presents summaries of the approaches taken and results realized by selected universities and colleges who undertook projects similar to the SEC within the last several years.

Appendix B provides construction cost data for recently completed buildings at several universities in the U.S.
Section 1. The Historical Perspective

The initial effort to create a new facility for engineering and the sciences at the George Washington University dates to 1985, when the Commission on the Year 2000 issued a series of recommendations to President Elliott, one of which called for the construction “at the earliest possible time for modern laboratories for teaching in the natural sciences and engineering, and additional facilities to support research and teaching in these areas”. In 1999, after more than a decade of inactivity, a number of faculty members from various science departments in CCAS again pointed to the inadequate and antiquated infrastructure housing the engineering and science departments and laboratories, and its restricting effect on the goal of placing GW in the top tier of research institutions in the United States. In response, the Executive Committee of the Faculty Senate in September 2003 charged the Senate Physical Facilities Committee to identify the most urgent needs within the University science and engineering research community for the construction of new facilities.

At several meetings with the Senate Physical Facilities Committee during the academic year 2003/04, Craig Linebaugh, Vice President for Academic Planning, William Frawley, Dean of CCAS, Donald Lehman, Executive Vice President for Academic Affairs, and Louis Katz, Vice President and Treasurer all voiced their support and pointed out the absolute requirement for new facilities. The committee then identified several academic departments within the University, including the physical sciences, the life sciences and mathematical sciences, as having the most urgent needs and benefiting most significantly from new infrastructure. Subsequent discussions with Dean Tong and Professor Harrington of SEAS resulted in the inclusion of the science-related engineering programs in the list of top priorities, with CCAS occupying first place and SEAS considered next in line.

As a result of these and subsequent meetings, on April 23, 2004 the Physical Facilities Committee of the Faculty Senate chaired by Professor Linda Gallo submitted a resolution to the Faculty Senate entitled “A Resolution on Construction of New Science Facilities as the Top Priority Among New Academic Structures”, wherein it makes the case that an investment in such facilities would provide numerous benefits to the University’s competitive posture in teaching and scientific research. This
Resolution was adapted unanimously without abstention by the Faculty Senate at its May 7, 2004 meeting.

During subsequent discussions among faculty and administration two models came under consideration, the first involving major renovations and additions to Corcoran and Sampson Halls, with the second focusing on the erection of one or more new buildings with a total of 100,000 to 400,000 square feet of space. Although a multi-building phased development was for a time under consideration, eventually a consensus emerged around the idea of a single structure, shared between specified science departments and the School of Engineering and Applied Science, to be erected on the site of the university parking garage. This structure has since become known as the Science and Engineering Complex (SEC). A time frame of 5 to 8 years was envisioned for planning, initial design and execution, with a price range between $50,000,000 and $160,000,000.

Following further deliberations on the concept and its relationship to the Campus Plan, enrollment targets and levels of funded research, Executive Vice President for Academic Affairs Donald Lehman in the summer of 2006 appointed a committee of faculty and administrators under the chairmanship of Elliot Hirshman, Chief Research Officer. The committee, known as the ”Science and Engineering Building Academic Program Committee”, was to develop a set of recommendations on which academic departments should be housed in the SEC, and to make a preliminary assessment of these departments’ relative space and infrastructure needs. In its final report, submitted to EVPAA Lehman on January 26, 2007, the committee made six major recommendations:

1. The faculty, instructional laboratories and research programs of all five departments of SEAS should be housed in the SEC.

2. The faculty and research programs of the CCAS Departments of Biology, Chemistry and Physics, as well as the Program in Biological Anthropology, should be housed in the SEC.

3. The SEC should be equipped with core research facilities operated as service centers and accessible to all researchers across the University on a fee-for-service basis.
4. Research laboratories should be constructed with maximum flexibility so as to accommodate the changing needs of interdisciplinary teams of researchers.

5. To enhance the learning environment, and as an aid to increased enrollment and retention of top undergraduate students, the SEC should contain state-of-the-art undergraduate instructional laboratories for all disciplines housed in the building.

6. The SEC should contain formal gathering spaces such as an auditorium to accommodate symposia and conferences, as well as informal meeting rooms to facilitate interaction between faculty and students. The latter should be located throughout the building.

The committee also considered, but did not recommend the inclusion of substantial numbers of classrooms in the SEC.

Following the submission of its report to EVPAA Lehman the committee disbanded.

During the Spring and Summer of 2008 a committee of the Board of Trustees, chaired by Mr. Nelson Carbonell and including members of the administration and faculty, further considered the issue of improving the infrastructure for science and engineering. The committee pointed out the urgent requirement for a substantial investment in science and engineering if the University is to progress on its Strategic Plan for Academic Excellence and meet its aspirations of placing in the top 100 institutions for total federal research expenditures. It also stated its case for a single building as the most cost effective solution, enumerating the disadvantages associated with the alternative of renovation and expansion of existing facilities. The committee issued its findings and recommendations in a document entitled “Notes for a presentation to The George Washington University Board of Trustees”.

Section 2. Project Teams, Committees and Consultants

In the period following the Hirshman committee report EVPAA Lehman, Vice President and Treasurer Louis Katz and the Board of Trustees appointed three groups of individuals to carry forward the process of planning the contemplated construction of new facilities for science and engineering. At present the primary responsibility for planning, design and
development is placed in three project teams and committees, with membership drawn from Facilities, the Board of Trustees, Administration, Faculty and Representatives of the SEAS and CCAS National Advisory Councils. The membership of these groups is as follows:

Facilities Project Team
- Juan Ibanez, Executive Director, Facilities
- Arthur Bean, Director, Facilities Project Management
- David Wellman, Executive Project Manager
- Michael Burns, Project Management

Project Planning Committee
- Facilities:
  - David Wellman, Chair
  - Michael Burns
- Administration:
  - Jeffrey Lenn
- School Representatives
  - Can Korman (SEAS)
  - Randall Packer (CCAS)
- Senate Representatives
  - Joseph Cordes (Chair, Fiscal Planning and Budgeting Committee)
  - Hermann Helgert (Chair, Physical Facilities Committee)

BoT Committee on the Science and Engineering Complex
- Board of Trustees
  - Nelson Carbonell (Chair)
  - Mark Hughes
  - Lydia Thomas
  - Gerald Lazarus
- Administration
  - Donald Lehman, EVPAA
  - Louis Katz, EVP and Treasurer
  - Laurel Price-Jones, VP, Development and Alumni Relations
  - Barbara Porter, Chief of Staff, Office of the President
  - John Kudless, AVP, Principle Gifts
- Deans
  - Peg Barratt (CCAS)
  - David Dolling (SEAS)
Section 3. Visions, Guidelines, Strategies

As a result of the deliberations on the need for new science and engineering facilities at GWU several guiding principles on the form and use of such facilities gradually emerged. These were formally stated at a “Visioning Meeting” on October 11, 2008, attended by the major stakeholders from the Board of Trustees, the administration and faculty, and chaired by Mr. Francis Cameron of The Zero Gravity Group. The meeting focused on the key issue of the size and location of the facility, explored possible synergies, collaborations and the potential for the sharing of equipment and core facilities among the relevant departments and programs, and considered strategies for the facility’s use. It stated its conclusions in terms of a vision statement and a set of guiding principles:

The Vision:

Create an intellectual center in the nation’s capital for world class, collaborative research and learning in science and engineering

The Guiding Principles:

Develop an environment for internal and external collaboration
Create structural flexibility through generic, modular and standardized design of research spaces to allow for alternative models for learning and research

Use visibility to promote internal and external interests in science and engineering

Incorporate spaces that facilitate the interaction among students, faculty and other users of the building

Balance a distinctive architecture with excellent design and separate physical identification of the science and engineering components

Include shared core facilities designed for ease of access

Inherent in these principles was the decision to proceed with a single structure, rather than several buildings dedicated to individual departments, schools or areas of research. Although a multi-building project would allow phased construction and phased funding, and could more easily accommodate special building features that may be necessary for some disciplines and programs, the single building design was considered to offer a number of key advantages:

- Flexibility in rearranging space and its allocation among tenant organizations.
- Increased opportunity for interdisciplinary collaboration among faculty in different departments and disciplines.
- Facilitated sharing of scientific equipment and core facilities.
- Cost effective construction and operation of the building.

In addition to these factors, the requirement of the Campus Plan for a single structure on the site of the current parking garage appears to be driving the decision for a single building. Nevertheless, the multi-building option has not been completely eliminated from consideration.

Subsequent to the “Visioning Meeting”, a meeting of the BoT Committee on the SEC on October 21, 2008 focused the discussion on two major issues:
What teaching, learning and research initiatives are likely in the near term and within five years of opening of the new facilities?

What strategies in pursuit of increased philanthropic and research funding should be developed and implemented?

Several members of the committees and working groups attended a conference on college and university science facilities held in San Diego, CA on October 27-28, 2008. The conference attracted a large number of representatives of colleges and universities in the United States that had constructed or were planning new science and engineering facilities.

The motivation for the construction of new science and engineering facilities most frequently stated by the conference participants was the promotion of collaboration among the science and engineering disciplines, facilitated through open access to specialized equipment and instrumentation, and transparent and flexible design of the space. New state-of-the-art facilities were also thought to lead to new research initiatives, increases in levels of external funding, and higher indirect cost recovery rates. They would also aid in attracting and retaining high quality students and leading research faculty.

A summary of the most relevant findings is provided in Appendix A of this report.

At a workshop on October 31, 2008 attended by administrative officials and members of the relevant engineering and science departments, and chaired by Mrs. Jeanne Narum from Project Kaleidoscope, Professor Kevin Bedell, Vice Provost for Research at Boston College and Wendy Newstetter of Georgia Institute of Technology related their experience in the wake of the construction of similar facilities on their campuses. Appendix B contains the key findings at Boston College, as provided by Professor Bedell. It was the general consensus that the new construction resulted in significant increases in student enrolment, research funding and productivity, internal and external faculty recognition, and increased ability to attract top tier researchers.

One set of participants in the workshop emphasized the use of the facility as an international crossroad for science and engineering, designed to host large
national and international conferences and workshops, and to include large classrooms with modern audio-visual and telecommunications capabilities. Other opinions stressed a preference for the facility to serve mostly as a laboratory for the exploration of new models of collaborative research and learning.

On December 9, 2008, EVPAA Lehman chaired a meeting of key stakeholders to further consider the issues raised in previous meetings and the workshop, and to prepare for a presentation to the forthcoming meeting of the BoT in February 2009. The meeting also received an update on the work of the Planning Committee to-date.

Section 4. The Science and Engineering Complex

Although it appears that the exact form, size and location of the science and engineering facility have not been finally established, current plans envision a single building to be erected on Square 55, the site of the university parking garage and the Physical Science building. Square 55 is bounded by 22nd Street, I Street, 23rd Street and H Street and has a total area of 56,000 square feet. The building is planned to cover 90% of the lot, with 8 floors above ground and one floor below ground. Gross square footage is estimated at 400,000 above ground and 50,000 below ground, with a 60% assignable footage ratio. The building’s elevation will reach 110 feet along I Street and 90 feet along H Street to a depth of 40 feet.

Non-academic use includes below-grade parking of up to 300 spaces and 5000 square feet of retail space along I Street as required in the Campus Plan. Suggested configurations of the academic space include several classrooms and an auditorium on Floor 1, research and teaching laboratories on Floors 2-7 and below grade, and faculty and department administrative offices on Floors 7 and 8. It is to be noted, however, that as of this date no firm plans for either the commercial or academic use of the space have been formulated.

Preliminary plans for building occupancy envision the departments of Electrical and Computer Engineering, Computer Science, Mechanical and Aerospace Engineering, Civil and Environmental Engineering and Engineering Management and Systems Engineering of SEAS, as well as the departments of Chemistry, Physics, Biology, and the program in Biological Anthropology from CCAS. The inclusion of certain collaborative research
activities between engineering, the physical sciences and the medical sciences is still under consideration.

It is to be noted that both the layout of the building, specifically the location of laboratories and faculty offices, and the list of eventual occupants are at present highly tentative. A more definitive plan is expected to emerge as the result of the benchmarking and programming process to be conducted in consultation with the faculty during the Spring and Summer of 2009.

An important adjunct of the project is the provision of replacement parking mandated by the District of Columbia for the approximately 1250 spaces eliminated by the planned demolition of the parking garage. At present only a partial parking replacement plan has been worked out. That plan includes between 200 and 300 spaces under the Science and Engineering Complex, 362 spaces under the Square 54 building, and potentially more than 178 spaces under the Square 80 building. Occupancy of these parking spaces is subject to completion of construction and will consequently be phased in over several years. As a potential interim solution, the University has entered into negotiations with parking providers external to the University.

Section 5. Plans and Development Activities

To-date only a small amount of preliminary work to determine the suitability of the Square 55 site has been undertaken. This includes soil tests under the parking garage, and acoustic and vibration measurements in the vicinity of the subway. An initial site survey has also been completed.

With the approval by the BoT in February 2009 to begin the planning process, it is anticipated that benchmarking and programming will commence in the Spring of 2009, with the initial architectural design of the building beginning in the Fall of 2009. The process of obtaining zoning approval could then be initiated in late 2009 or early 2010, and is expected to lead to project approval in early Fall of 2010. Contingent on final approval by the BoT, expected in May 2010, current plans call for an early-2011 date for ground breaking, with completion of the building in 2014.

In view of the current economic climate the possibility of completing the building in stages has been taken under consideration. Specifically, President Knapp and Vice President and Treasurer Louis Katz have suggested the possibility of finishing and furnishing each floor of the building complex
according to established priorities, and as the requisite funds become available. In one such model of staged completion, Floors 1, 2, 7 and 8 would be slated for completion in the 2011/14 time frame, with completion of the remaining floors on a schedule dictated by academic priorities, the cost of construction and the availability of funds.

A further consideration that may affect the construction timeline involves the obvious need to raze the parking garage prior to the start of construction and the City-imposed requirement to identify alternate parking capacity elsewhere on the main campus. To the extent that replacement of all 1250 parking spaces cannot be accomplished by 2011, the start of construction may be delayed.

It is also to be noted that the current economic climate is likely to force a delay in the effort to raise funds for the construction of the SEC, thereby calling into question the viability of the above timeline.

Section 6. Financial Considerations

Constructing an academic facility of the scale of the proposed SEC will have multiple impacts on the University operating budget.

Financial Planning for the SEC

To date, the most immediate budgetary impact of the SEC has been in the form of current and planned outlays for planning of the facility.

Planning funds committed to the project to-date include the sums of $700,000 for fiscal year 2008 and $800,000 for fiscal year 2009. These funds were derived from the University Capital Budget. An additional $800,000 is included in the FY 2010 Capital Budget. Ultimately any amounts included in the Capital Budget are reflected as expense items in the University Operating Budget.

At its February 2009 meeting the BoT authorized the expenditure of up to $10,000,000 for planning, benchmarking, programming and initial architectural design of the complex. The funds for this planning effort are likely to initially come from University reserve funds, and would thus not have an immediate impact on the University budget. Executive VP and Treasurer Katz has indicated that funds withdrawn from reserves would
eventually be repaid, most likely by including the planning funds in the overall cost of the project that is to be financed.

Financing the Construction of the SEC

At present there is considerable uncertainty about the overall cost of the proposed SEC, as well as uncertainty about how these costs are to be financed.

Absent any details on the design and interior layout of the building, at present the only available data on the cost of construction of the Science and Engineering Complex is a first estimate of between $400 and $600 per square foot of gross space, which equates to a total of between $180 million and $270 million. Similarly, only a first estimate of the eventual building operating cost of $6.3 million annually has been advanced by Professor Cordes, Chair of the Fiscal Planning and Budgeting Committee. The costs of equipment and furnishings have as yet not been addressed. It is the administration’s stated intent to develop reasonably precise cost data in parallel with the benchmarking, programming and design phase authorized by the BoT in February 2009, and to have such data available for the BoT meeting in May 2010.

Additional cost attributable to the SEC derives from the demolition of the parking garage, with a loss of revenue of approximately $2.1 million per year during the construction period. To the extent that excess parking currently exists on the Foggy Bottom Campus that could absorb some of the displacement, the impact would, of course, be reduced.

In addition to uncertainty concerning the cost of the SEC, there is also some uncertainty about how the proposed facility is to be financed.

At an initial meeting of the SEC in summer 2008 that was attended by senior members of the University administration, President Knapp stated that funding of the facility would come from three sources of “new” revenue: (a) proceeds from Square 54, (b) increased philanthropy, and (c) increased net income from indirect cost recovery resulting from sponsored research activities to be located in the SEC. These principles were affirmed by Executive VP Katz in the December 12, 2008 meeting of the Faculty Senate when he pointed out that President Knapp’s statement was consistent with the University’s plan for financing the facility.
Based on this “three pillar” financing model, Prof. Cordes prepared an analysis of a hypothetical financing scenario for the proposed SEC, with input from members of the Faculty Senate Fiscal Planning and Budgeting Committee, as well as the University administration. That scenario rested on the following assumptions.

(1) The cost of constructing the SEC (not including the costs of staffing) would equal $250 million.

(2) The University would be able to generate new philanthropy in the amount of $100 million, leaving $150 million to be financed by other means.

(3) The $150 million not defrayed from new philanthropy would be financed by borrowing $150 million to be amortized over 30 years at an assumed interest rate of 6%, resulting in additional debt service costs.

(4) The additional debt service costs of financing $150 million would equal $10.9 million. When added to the $6.3 million annual costs of operations, the costs of constructing and operating the SEC thus would equal an annual amount of $17.2 million.

(5) Under the three pillar model for financing the SEC initially proposed by President Knapp, $7.1 million of the $17.2 million would be offset by earmarked Square 54 endowment payout, leaving the remainder to be financed by net income from increased indirect cost recovery which would need to equal $10.1 million.

(6) A lower amount of increased net income from increased indirect cost recovery would be required if a larger share of the costs of the SEC were to be financed from philanthropy. For example, if the University were able to generate $170 million in new philanthropy for the SEC, the amount of the SEC that would be financed by debt would decline to $80 million. In that case, debt service costs would equal $5.8 million per year, which when added to the estimate $6.3 million cost of operations would equal an annual amount of $12.1 million. This amount in turn could be offset by the $7.1 million endowment payout from Square 54 plus approximately $5 million in net income from increased cost recovery.
Under financing scenarios of these types, the costs of: construction plus (partially) furnishing the SEC plus operating the proposed SEC could be offset from additional financial resources rather than from reallocations within the existing Operating Budget.¹

At the same time, other documents submitted to the special Senate Committee on the SEC indicate that there have been discussions at the level of the Board of Trustees of a different “six pillar” financing model resting on a mix of (a) use of University reserves, (b) endowment payout from Square 54, (c) increased philanthropy, (d) increased indirect cost recovery from funded research, (e) additional indirect cost recovery specifically to cover the cost of scientific equipment and infrastructure over and above basic laboratory furnishings in the SEC, and (f) additional debt finance.

What is unclear about the latter six pillar model is whether the various sources of funding are seen primarily as financing mechanisms that provide the needed liquidity to allow financing to go forward, under the assumption that ultimately the SEC is to be financed from new financial resources, or whether the six pillar model would ultimately involve a mix of new revenue and budget reallocations.

A recent GW Hatchet interview with President Knapp further suggests that the Administration may be reassessing the feasibility of the initial commitment to finance the SEC entirely (or at least principally) from new revenue. In the Hatchet interview President Knapp offers the following comments:

- (GWU) “will use debt to fund a significant portion of initial construction on the $300 million Science and Engineering Complex.
- (though the President and other administrators) “had said previously that the complex would be funded through donations, research grants and revenue from the multi-purpose complex at Square 54…..he does not think these sources alone will be sufficient for the initial construction.”

¹ Note: These estimates differ from those presented by Prof. Cordes at the Nov. 14 Faculty Senate meeting. Subsequent to that meeting, it was called to Prof. Cordes’ attention by Prof. Helgert that $170 million (rather than $100 million) in new fundraising would be needed to produce a debt service stream that could be financed by a $7.1 million Square 54 endowment payout plus $5 million in net income from increased cost recovery.
• (he remained committed) “to keeping his promise of not using funds from the operating budgets – which includes money from tuition – to construct the complex…(the University) instead (will) use revenue from debt, in addition to the three other previously cited sources.”

What is not clear from the interview is whether debt finance of the SEC is seen (as noted above) as a means of liquidity to expedite finance of a project that ultimately is to be financed from new resources, or whether debt finance is seen as a substitute for new sources of revenue. If it is the latter interpretation, it is not clear how one can simultaneously add to the University’s existing debt burden and at the same time avoid using funds from the operating budget. The current University Operating budget is already strained to meet existing financing needs of the University. Hence, any significant increase in debt burden, with the attendant increase in debt service costs, seems likely to generate increased charges against the University Budget – tuition revenue – that would need to be covered in some form – e.g. by reallocation of existing resources, a mix of resource reallocation plus new resources, or new resources.

It should be noted that if current fund-raising realities constrain the ability of the University to ultimately finance the SEC from new revenue sources, there would be ways of financing the SEC that would not have a direct effect on the operating budget. One option would be to draw on Reserves, with the understanding that the funds withdrawn would be replaced from new sources of revenue, instead of from operating revenue. Another option would be to increase payout from the endowment to defray the costs of debt finance. Neither option, however, appears to have been raised as a financing option for the SEC at this time.

The Important Role of Fund-Raising

During several recent meetings of the planning and BoT committees the subject of fund raising and its potential for a substantial contribution to the SEC’s construction and operating costs was the subject of discussion. Currently the Deans of the affected Schools are considering various strategies for promoting the building, its laboratories and other facilities to individual donors, philanthropic organizations and governmental entities. The development of a specific approach and the assessment of its potential will have to proceed in parallel with the programming and design activities.
All recognize that the current fundraising environment poses significant challenges to substantial new fundraising by the university. The realities of the current situation were highlighted in a presentation to the special committee on April 1, 2009 by VP for Development Price Jones.

In her presentation Vice President Price Jones provided her assessment of the importance of fund raising as a make-or-break issue for the SEC. She stated that the SEC effort would be embedded into a major capital campaign for the University. She indicated that the start of that campaign would depend to some extent on economic conditions, but that in view of current conditions, the preliminary work needed to launch a major capital campaign for the University would be delayed by six months to a year until 2010. Then, based on input gained from that preliminary research, the campaign would commence, and continue over a period of seven years. Vice President Price Jones considers a strategy of raising funds over an extended period of time in phase with the staged construction of the SEC a viable option, but also pointed out that experience shows the level of success to diminish once the facility is fully operational.

Vice President Price Jones elaborated on the design of a strategy for the SEC capital campaign that would include the following elements:

1. Perform a feasibility study that would include consideration of the need for the building, its purpose, cost, size and appearance.

2. Conduct a series of one-on-one interviews with potential individual and corporate donors to assess their interest in the project, obtain feedback on the quality of the case for support, and determine whether the building is compatible with their philanthropic priorities.

3. Expand those conversations to larger groups of potential donors through group meetings and dinners.

4. Further expand the study through on-line contacts with large groups of prospects.

5. As a result of the information gathered through these contacts, build a gift table identifying the number of prospects at various levels of support and set a dollar target for the campaign.
Share this information with the key stakeholders of the University and obtain approval for the start of the campaign.

The process of designing the strategy and implementing the above steps is expected to take approximately 6 months.

In summary, Vice President Price Jones considers fund raising for the SEC to require a continuous effort over several years. Its success will depend critically on the University’s ability to make the case for a major investment in research and teaching in science and engineering in the nation’s capital.

Section 7. Activities of the Senate SEC Committee

During the summer of 2008 the committee met on several occasions to develop an agenda for its future activities and to inform itself of the state of the SEC project. It also had intensive discussions with several representatives of the faculty and administration involved in the planning process.

At its June 12, 2008 meeting the committee received a briefing from Chief Research Officer Elliot Hirshman on the findings and recommendations of the Science and Engineering Building Academic Program Committee.

On June 18, 2008 the committee met with President Steven Knapp, Executive Vice President for Academic Affairs Donald Lehman and Executive Vice President and Treasurer Louis Katz. During that meeting the administration stated its vision on the key issues of the size and scope of the complex, methods of financing its construction, and tentative milestones for planning, design and completion. The funding plan for the SEC envisioned three primary sources of funds, namely philanthropy, revenue from Square 54, and increased amounts of indirect cost recovery from externally funded research. Various committee members expressed the desirability of the early and continuing involvement of the faculty in the planning process and President Knapp assured the committee that it was his intention to provide continued visibility and faculty participation in all phases of the project.

One important outcome of that same meeting was the appointment at the request of Professor Arthur Wilmarth, chair of the Faculty Senate Executive Committee, of the chairs of the Faculty Senate committees on Physical Facilities (Professor Helgert) and Fiscal Planning and Budgeting (Professor
Cordes) to the committee on the SEC established by the Board of Trustees, thus providing a direct linkage between the Faculty Senate and the administrative offices involved in the planning process.

On June 25, 2008 the committee met with Professors Can Korman and David Ramaker, who are the members of the faculty appointed to the Board of Trustees Committee on the SEC. The purpose of this meeting was to share information related to the committee’s charter and the work of the Board of Trustees committee. Professor Korman shared the document entitled “Notes for a Presentation to The George Washington University Board of Trustees”, in which the committee provides arguments for the necessity of investing in science and engineering facilities and the rationale for a new building over the renovation of existing buildings. During the 2008/09 academic year the committee explored several alternatives to the single building concept and during the course of several meetings had extensive discussions on the SEC’s impact on parking and the financial state of the University.

At its February 9, 2009 meeting the committee invited Mr. Nelson Carbonell, who offered the view of the BoT committee on the need for the building, its scale, and methods of financing its construction. Mr. Carbonell stated that the BoT committee is guided by three considerations in its decision whether or not to support the construction of the SEC:

- Given the obvious and urgent need for improved science and engineering facilities in general as a prerequisite to moving the University into the first rank of urban research universities, what is the best model for locating, planning, funding and construction of such facilities?

- How does a single multidisciplinary building fit into the overall mission of the University and the Campus Plan?

- How can the University profit from the SEC in its goal to improve its financial posture?

Mr. Carbonell stated that the decision to proceed with the construction of the SEC is contingent on the development of a research and teaching agenda by the relevant schools and departments. He further noted that the ultimate users of the facility must play an integral part shaping the agenda and the planning process. Mr. Carbonell also advanced his vision that access to the
facility by individual researchers would be governed by their level of external support in the form of grants or contracts.

Mr. Carbonell pointed out the restrictions on construction imposed by the Campus Plan approved by the District of Columbia, which calls for a single building of approximately 500,000 square feet on the site of the parking garage. He further stressed the absolute requirement to replace the parking spaces lost through the demolition of the parking garage.

Mr. Carbonell also assured the committee of the most likely need to maintain and upgrade some of the existing science and engineering facilities, in addition to any new structure, so as to create flexibility in the assignment of space and to allow for increases in the number of faculty and students in the science and engineering disciplines.

On the subject of funding the construction, infrastructure and operating costs of the SEC, Mr. Carbonell pointed out that the project cannot be funded solely by increasing the debt of the University. He called for a reorganization of the approach to fund raising, mentioning that the University is currently not in the top 100 institutions, as measured by the volume of donations. He also called for participation in the fund raising effort by all parties concerned, including faculty, administration and staff. Mr. Carbonell expected the BoT, on recommendation from its Academic Affairs and Finance Committees, to approve at its February 2009 meeting the amount of $10 million for the initial benchmarking, planning, programming and design effort for the SEC. Final approval of the project and commitment of funds are contingent on a report to the BoT at the end of the initial development phase, likely in May 2010.

At its April 1, 2009 meeting the committee invited Vice President Laurel Price Jones, who offered her views on the potential of raising substantial funds for the construction and operation of the SEC, and the design and implementation of a corresponding strategy (see the discussion above).

Section 8. Major Concerns

In the opinion of some members of the committee the rationale calling for a single building on the site of the parking garage is unconvincing. In particular, the members questioned whether the City-approved campus plan absolutely requires such a choice, whether the cost tradeoffs between a
single building and several smaller buildings have been adequately considered, and what role the Virginia Campus might play in the expansion of research in the sciences and engineering at GWU.

The committee expressed its concern on the present lack of any credible information on the cost of constructing, equipping and operating the SEC, and stresses the need to develop reasonably reliable estimates in parallel with the benchmarking, programming and design process over the Summer and early Fall 2009.

The committee further urges that a major effort be undertaken to develop a realistic funding plan, including a strategy for a major fund raising campaign and an assessment of its potential contribution to the costs of construction and continuous operation. In this context it expressed its concern that economic conditions may impose a delay in the start of the campaign, significantly limit its result, and impact the scope of the building and the timeline for its construction.

As part of a discussion of the funding plan, more attention needs to be given to whether the SEC is to be funded from new resources or from reallocation of existing resources. All agree that there is a critical need for the University to make significant investment in the academic infrastructure needed to support engineering and the natural sciences. However, the budgetary and academic implications of funding such investments from existing resources, vs. a mix of existing and new resources, vs. entirely from new resources are likely to be rather different. In view of the current and acknowledged uncertainty about the likely role to be played by philanthropy as a source of significant new resources, it would seem prudent to consider alternatives.

An important concern of the committee centers on the internal design of the building, including the size and location of laboratories and faculty offices. The committee expressed its consensus on the need for significant faculty input during the benchmarking, programming and design phases. In addition, the committee urges the engagement of professional expertise that could advise the University on matters of design and equipping of science and engineering facilities.

The committee also views as essential the inclusion of the faculty in the process of developing policies governing the selection of areas of research and the corresponding assignment of laboratories.
An important subject of the committee’s deliberations during the academic year 2008/09 revolved around the future disposition of the existing science and engineering infrastructure. The committee expressed its concern with the current plan to relocate most science departments and all engineering departments to the new building, thereby making available their current facilities for other uses. The committee emphasized the need for additional space and infrastructure to accommodate the anticipated growth in levels of research and the corresponding number of faculty and students. In the opinion of some members of the committee, it seems likely that this growth would mandate the retention and renovation of much of the facilities currently occupied by the relevant departments. Other committee members, however, have noted that a stated rationale for constructing the SEC is ostensibly to free up space for more general use by other departments, and that should this not be possible, one of the major arguments for the SEC as currently proposed is weakened considerably.

As a further corollary to the development of the Science and Engineering Complex, the committee also stressed the need for an overall strategic plan for science and engineering at the George Washington University. Such a plan would identify new areas of research and teaching, increases in the number of faculty and students in critical areas, and a major fund-raising strategy in support of these matters. The committee views as essential that the faculty play an integral part in this process.

The committee urges full transparency of the benchmarking, programming and design process through the inclusion of the faculty in decisions affecting the internal layout and external design of the complex and the allocation of space. It also considers a continuous flow of information to the faculty on the financial implications of constructing and operating the complex to be of great importance.

The committee finally stressed the urgent need for both an interim and a final parking plan that would address the concerns of the medical school and hospital for parking accommodation for doctors and patients in the vicinity of the hospital. In addition, the costs associated with the demolition of the parking garage and the provision of substitute parking facilities should be articulated.
References

Faculty Senate Resolution on Construction of New Science Facility as the Top Priority Among New Academic Structures (04/1)


Notes for a presentation to The George Washington University Board of Trustees, Board of Trustees document, undated
Appendix A

Approaches and Results at Other Institutions

The Boston College Building

Building-related improvements
• Major improvements in student and faculty recruitment, research activity, collaboration and seamless integration of research and teaching
• Improvements materialized during the planning and building phases and continue to this day
• Improvements are ascribed to the building itself and the involvement of the faculty in the design of the building and the selection of the architectural firms

Undergraduate Student Enrollment
• Substantial increase in undergraduate science majors
  – Currently 74 Physics majors compared to 18 prior to opening of the building – an all-time high
  – 3 Goldwater Prize recipients
  – 1 Rhodes Scholar
  – Seniors accepted to top PhD programs at Oxford, Caltech, Columbia, Duke, ..

Graduate Student Enrollment
• Doubling of the number of graduate applications and graduate students in the sciences
  – 20 applications to PhD program for each available slot
  – Doubling of the number of PhD students in the sciences
  – Graduating students accepted for post-doctoral appointments at Cambridge, Rutgers, Harvard, Brookhaven, Los Alamos,..

Research Activities
• Dramatic increase in external funding from $12.5 M to $15.9M for science-related research in one year
• New interdisciplinary research grants
• 3 companies spun off by the physics department and funded by venture capital investment groups
Collaboration

- Development of a research community within BU through collaboration of the sciences
  - Physics, Chemistry, Biology
- Collaboration with other universities and research laboratories
  - MIT, Harvard, Brookhaven, Los Alamos, NANOLAB

Recognition

- Substantial increases in the number of publications, symposium presentations and invited talks
- One Sloan award, 4 APS Fellows, 1 Fellow of the AAAS
- Presentations of colloquia by Nobel laureates and other distinguished scientists
- Recruitment of high quality faculty

The RPI Biotechnology Building

Building Parameters

- Area - 218000 gsf/126754 nsf
- Research Labs - 31240 nsf
- Core Facilities - 27350 nsf
- Support Labs - 13009 nsf
- Offices - 33124 nsf
- Conference Center - 5831 nsf
- Auditorium - 5027 nsf
- Atrium - 4600 nsf
- Opened in 2004
- Cost in 2004 - $70M ($321/gsf)

The RPI Biotechnology Project

- Planned and constructed exclusively for research.
- Focused on the application of engineering and the physical and information sciences to the life sciences.
- Exemplifies a new research paradigm.
- Houses faculty and researchers engaged in interdisciplinary research. No department offices
- Occupied exclusively by researchers.
- Houses the facilities to support and facilitate interdisciplinary research.
Biotechnology Areas of Research
- Biocatalysis and Metabolic Engineering
- Biocomputation and Bioinformatics
- Integrative Systems Biology
- Functional Tissue Engineering and Regenerative Medicine
- Biology and Biochemistry
- Bioimaging and Bioinstrumentation
- Biochemistry and Biophysics
- Nanobiotechnology
- Biochips and Microsystems

The Core Facilities
- Analytical Biochemistry
- Biocomputation
- Nuclear Magnetic Resonance
- Microbiology
- Microscopy and Imaging
- Proteomics
- Cell and Molecular Biology
- Zebrafish Facility
- Vivarium

Policy on Space Allocation
- Centralized control and management of space by committee of faculty and administration
- All space is “owned” by the Institute
- All departments, research centers and occupants are tenants of the Institute.
- Space is allocated and assigned to the highest and best strategic use.
- Space that is underutilized and/or nonproductive is “Recovered”.
- Space is assigned to individual tenured faculty for a period of (3) three years and to new tenure-track faculty for a period of up to (6) years coinciding with the tenure decision.
- Amount of lab and office space assigned based on the number of research scientists, graduate students, post doc fellows, technicians, etc.
- The Center’s designated “Hotel Space” is assigned by the Center Director to individuals, groups of faculty and visiting researchers for a period up to one year.
Criteria for Assignment/Renewal of Space
  • Programmatic alignment with the field of biotechnology.
  • Interdisciplinary and collaborative aspects of investigator’s research.
  • Research productivity and national/international recognition.
  • Level of Research Funding.
  • Service to the Center.

Research Productivity and Recognition
  • Number and Scope of Funded Proposals
  • Number and Quality of Research Publications
  • Patents
  • Licensing Agreements
  • Books, Book Chapters and Review Articles
  • Conference Proceedings and Presentations
  • National and International Awards
  • Appointment to Academic Academies
  • Society Leadership

Level of Research Funding
  • Review of past and current funding.
    • Role and share of each Grant and the Center or Department assigned.
  • Overhead Rate for each Grant.
  • Number of funded research personnel and students
    • PI, research faculty, postdoctoral fellows, visiting scientists, technicians, graduate students, undergraduate students, etc.
  • Review of alternative funding
    • External student fellowships, visiting researchers and faculty, equipment gifts, etc.

Service to the Center
  • Participation on Center Committees
  • Funding Initiatives
  • Student/Faculty Recruiting Activities.
  • Procurement, maintenance, supervision of the Center’s Core Facilities.
  • Institute Advancement and Development and other fund raising activities.
  • Organizing, hosting or sponsoring of Center Meetings and Symposia
Occupancy Plan
- 50% of the laboratory space assigned to relocating existing research faculty
- Set aside of 50% of the lab capacity for future constellations and growth in research.
- Staffing with a mix of Senior and Junior Research Faculty
- Senior Faculty
  - Established researchers with broad professional recognition in their fields and significant external research funding.
  - Junior Faculty with high potential for important research contributions, early grant awards and collaborative research projects.
- Initial target for research expenditures $300,000/faculty/year.

The Syracuse University Life Science Complex – 2008

Classroom Spaces
- One 114 seat classroom
- Two 50-seat classrooms
- Four 30-seat classrooms
- One 250 seat auditorium
- Computer Rooms
- Small group teaching spaces

Teaching Laboratories
- Four introductory Biology laboratories
- Three Introductory Chemistry laboratories
- Five upper division Biology laboratories
- Four Upper division Chemistry laboratories
- One interdisciplinary laboratory (Biochemistry/Molecular Biology)

Faculty Offices & Research Spaces
- Three floors of research labs with nine interconnected labs per floor
- Each research floor has
  1 lab of 2,300 sq ft (500 sq ft customizable)
  4 labs of 1,250 sq ft (250 sq ft customizable)
  4 labs of 1,000 sq ft (250 sq ft customizable)
- Each floor has between 3,800 and 4,600 sq ft of research support spaces.
- 2 conference rooms
• Offices for faculty (including Emeritus faculty), post-doctoral fellows and graduate students

**The Indiana University Multidisciplinary Science Building**

**Use Concept**
• Centrally located between the traditional science departments for easy access through connecting tunnel
• Integration of physics, chemistry and biology departments
• Promotes collaboration and teamwork among scientific departments
• Convenient access to specialized equipment
• Flexible design of laboratories
• Designed for sustainability and longevity

**Space Assignment**
• Total net space 77,000 sf
• Laboratories 49%
• Offices 26%
• Lab Support 17%
• Other 8% (no assigned classroom space)

**Space Assignment Policy**
• Assignment of space is controlled by a governance committee of faculty from the science departments
• 50% of space is assigned to existing faculty
• 50% of space is reserved and dedicated to the hiring of new faculty

**Funding**
• Total cost of building and infrastructure - $60M
• State of Indiana bond issue - $30M
• Single major (naming) donor - $10M
• Individual sponsors of institutes, centers and laboratories – 20M
• Operation and infrastructure funds derived from indirect cost recovery on research contracts

**Experience to Date**
• Ability to retain prominent researchers
• Positive experience in recruiting renowned and highly productive new faculty
• Increase in indirect cost recovery rates
Appendix B

Costs of Recent Construction of Science and Engineering Buildings

Furman University
• 250,000 gsf
• $37.8M - $151/gsf
• Completed in 2008

Temple University School of Medicine
• 480,000 gsf
• $131M - $273/gsf
• Expected completion 2009

RPI
• 218,000 gsf
• $70M - $321/gsf
• Completed in 2004

Wisconsin Institute for Discovery
• 330,000 gsf
• $162M - $491/gsf
• Expected completion 2010

Stanford University Environment and Energy Building
• 166,500 gsf
• $118M - $709/gsf
• Completed in 2008

Indiana University Multidisciplinary Scientific Research Building
• 140,000 gsf
• $47M - $335/gsf
• Completed in 2007

General cost range of buildings initiated in 2008
• High $587/gsf
• Low $329/gsf
• Average $448/gsf
May 2, 2009

TO: GWU Faculty Senate
FROM: Anthony Yezer


The Reason for this Minority Report

The material in this Minority Report was presented and considered during the meetings of the Committee. Most of it is based on financial analysis that I provided to the Committee. I am not aware of any significant errors in the analysis and I am not aware that any member of the Committee has demonstrated that the points made here are either incorrect or irrelevant. However, in spite of my requests that this material be included in the Committee Report, much of the content of this Report is still absent from the final Committee Report. I believe that this material is correct and germane. It also took considerable effort on my part to put together some of these statistics. This material should have been included in the Committee Report in order to fully inform the Senate and I have therefore provided it in a Minority Report. To those who read this Report and learn nothing of value, I apologize, in advance, for wasting their time.

Executive Summary of the Minority Report

The single site identified for the SEC is extremely valuable and has a current value of more than $50,000,000. It is also zoned for high density. Based on both these considerations, the proposed SEC building will be quite costly. My expected cost, including site value is $500,000,000. My estimate of the annualized cost of the SEC is $43,000,000. The annualized cost of the SEC must be financed using, in large part, operating revenues (tuition and auxiliary enterprises). This will force the University to continue to run a substantial operating surplus (operating revenues in excess of operating cost). The University currently runs a substantial operating surplus (over 12%). To put this in perspective consider the operating surplus of our competitors, Georgetown -1%, Boston University (1.4%), American University (5.8%). Note that the current University operating surplus is actually closer to commercial ventures, DeVry (15%), than it is to our competitors. I do not believe that our current operating surplus is sustainable and the difference between our current situation, even without the SEC, and the competition should be of concern to the Senate.
Implications of the Administrative Decisions Made Thus Far

The site selection has direct implications for the minimum size and cost of the project. Applying standard economics analysis allows us to estimate the scale and cost of the building. The site is occupied by a parking garage the 1,250 spaces and a small instructional building. Zoning requirements will require that the 1,250 spaces be replaced (with underground parking). Given a construction cost of $40,000 per stall for underground parking (supplied by Nelson Carbonell) this implies a site cost of over $50,000,000 once demolition costs are added. Alternatively one can capitalize the $2.2 million in net revenue from the structure at the real rate of interest and get a similar site cost.

In this area, a conservative ratio of structure cost to land cost for an ordinary structure would be at least 6, yielding a structure cost of $300,000,000. Given that this facility is for scientific research, the cost per square foot is unusually high. Adding a conservative 33% for this cost differential raises the structure cost to $400,000,000. Thus the total cost, including the site cost for an economically justifiable new science structure on this site is estimated at $450,000,000.

RESPONSES TO THE FOUR QUESTIONS
PUT TO THE SPECIAL COMMITTEE

(i) the projected size and scope of the SEC

The administration has fixed on a single site where the level of buildout to the floor area ratio permitted under current zoning implies a structure with 400,000 – 600,000 square feet of interior space. Note that clearance of the site will require demolition of approximately 200,000 square feet of interior space. Given the scale of space loss, economic necessity (as well as zoning considerations given this site selection) places the minimum size at 400,000 square feet and a maximum size at 600,000 square feet. The most important point here is that the site selection, combined with the zoning, argues for a massive structure. Note that, because the site selected requires demolition of the parking garage, it is very likely that most of the underground space in the SC will need to be used for parking. Ordinarily underground space is quite suitable for research laboratories – indeed is a benefit to some research activities.

(ii) the projected costs of building the SEC and providing the SEC with the requisite equipment and other furnishings;

In addition to the cost estimates provided above based on logical consistency with the site value, it is also possible to form a cost estimate based on the limited information on the physical characteristics of the structure provided to the Committee. Planning up to January, 2008, has perhaps cost $2,000,000. A further $10,000,000 for planning was approved by the BOT.
Replacement cost to provide 1,250 parking stalls of underground parking (zoning requirements mandate replacing parking removed) at a construction cost of $40,000 per stall (including ramps, elevators, etc) is $50,000,000. Replacement cost of other space demolished plus cost of demolition, brings the total cost of site clearance to over $50,000,000. Alternatively, one can take the $2,200,000 in net revenue from the parking garage and capitalize it at the real rate of interest over the usable lifetime of the structure, 25 years, and get a similar cost figure.

Construction cost is conservatively estimated at $400 per square foot and equipment cost at $100, for a total of $200,000,000 for the minimum size (400,000) square foot building. An upper bound for construction cost (based on cost per square foot observed for similar projects elsewhere and considering that DC is a very high cost area) would be $700 per square foot and equipment cost of $200 per square foot, making the total cost of a 400,000 square foot building $360,000,000. These cost figures for a 600,000 foot structure would be $300,000,000 and $540,000,000.

Operating cost for such a building is much higher than for an ordinary building. A conservative estimate would be $7 per square foot which implies $3,500,000 per year for a 500,000 square foot structure.

Depreciation charges for a science structure are significant and surely higher than for an ordinary office and classroom structure. Again, a conservative estimate would be 5% per year blending rates ranging from zero for the site to 10% for equipment.

These costs must now be put together and turned into an annualized flow of cost which can be compared to likely revenues. Based on the two approaches to costing the facility, site value, and costing based on reported square footage, the capital cost of the structure and site is estimated at $500,000,000. Applying a 3% cost of funds and a 5% depreciation rate to this sum yields and annualized cost flow of $40,000,000 per year. Why is the 3% real rate of interest used rather than a 6% nominal rate of interest? This report is computing the real economic cost of the SEC and that is determined by the real cost of funds. Including estimated maintenance cost raises this to $43,500,000 per year in annualized cost.

(iii) the anticipated sources of funding to meet those costs;

In meetings with the administration, there has been a consistent emphasis on revenues from Square 54 ($7,200,000 per year), indirect cost recovery (estimated informally at $5,000,000 per year), and external fundraising through the expanded efforts of the Development Office.

The other source of funding, as it is for all construction projects, is the operating budget (mainly tuition, room and board paid by students). Moody’s Investor’s Service 24, October 2008 Rating Update lists among the strengths of the university, in addition to its

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1 This estimate includes site cost and basic equipment and is based on a weighted average of the expected costs based on different costing approaches discussed in this report.
selectivity, its “Consistently positive cash flow margin (12% in FY 2008)” and notes that “The University’s strong cash low allows it to fund a sizeable portion of its capital investment plan directly.” What does this mean in simple terms? It means that all of the endowment income is used for capital purposes and that the operating surplus at GWU is so large that it manages to cover both debt service and a significant portion of capital projects. Put another way, buildings are built with tuition revenue rather than tuition revenue being used to provide faculty resources to educate students. Currently capital costs are approximately $65,000,000. The entire endowment payout is only $35,000,000, which leaves at least $30,000,000 to be funded out of the operating budget.

Some members of the administration have mentioned “reserves” as a funding source. Of course, reserves are just past operating surpluses that were accumulated because the administration felt that they were necessary.

(iv) the projected impact of the SEC on the University's operational and capital budgets during the next several years.

This is a most interesting question because it asks for the implications for the University’s operating budget of building the SEC rather than not building the SEC. If this is the question, then it is clear that the operating surplus (the excess of operating revenues over the operating budget) that is currently being used, as Moody’s Investor Services has noted, to fund capital expenditures could be MUCH smaller.

Consider the following effects.

1. Without the SEC the 7.2 million per year from Square 54 could be used for capital cost rather than using the operating surplus for that purpose. Obviously if the required operating surplus were reduced, this would increase the operating budget.

2. The annualized cost estimate for the SEC is 43,500,000. Even accepting the estimate that, indirect cost recovery would be eventually $5,000,000 higher net or costs of providing services to support the added research, with the SEC than without it, this leaves a residual annualized cost of $38,500,000. This would have to be funded by having a higher operating surplus OR by raising sufficient funds to produce an endowment payout of $38,500,000 per year – i.e. at our current payout rate this implies raising $770,000,000 – a sum that is an order of magnitude larger than our estimate of the likely extent of this external fund raising.

3. Use of reserves implies that past operating surpluses placed into reserves were not deeded for reserves or, at least, are no longer needed. Of course, these surplus reserves could be returned to the operating budget if they were not deflected to the SEC. Therefore use of reserves or interest on reserves for the SEC comes at the expense of the operating budget.

Note that in these computations, I have not bothered to make further adjustments that would raise cost, and or lower net revenues to support the SEC. For example, the indirect cost recovery would lag the construction cost significantly and this lag would need to be capitalized into the cost of the structure. The same comment applies to the portion of fundraising after completion of the structure and, of course, one should net out
the costs of raising those funds as represented by the rapidly rising expenditures of the development office.

Thus the short answer to what effect the proposed SEC would have on the operating budget is that it will be substantially smaller because a significant amount of capital cost will need to be supported by running an operating surplus. There is nothing new in this. It has been the GWU business model for many years. A further question is whether GWU can continue to run a large operating surplus and remain competitive with other institutions that are not forced to run an operating surplus – indeed most institutions use endowment income to run an operating deficit. The University currently runs a substantial operating surplus (over 12%). Consider, for example, the operating surpluses of our competitors, Georgetown (-1%), Boston University (1.4%), American University (5.8%). Note that the current University operating surplus is actually closer to commercial ventures, DeVry (15%), than it is to our competitors. For further insight into these competitive issues in the local market for higher education services see Appendix 1.

As noted above, the excellent, A-1, rating of University debt is, according to Moody’s, based on selectivity in admissions and the large operating margin. I question whether, particularly in the current economic climate, both of these criteria can be maintained even without taking on the additional debt required for proposed University construction projects.

Appendix 1
GWU and its Local Rivals

It is difficult to understand how the University can gain on its competition (or how it will avoid falling in rank) if the current business model calling for substantial operating surpluses to be transferred from tuition to capital purposes is continued. Most of the University’s peer group competitors are allowed to produce educational and research services that are being subsidized by endowment funds. This allows them to pay higher salaries, and teach students in smaller classes with full time faculty who contribute to the research reputation of their institutions. Research reputations are made by full time tenured faculty and relationships between faculty and students that enhance the educational experience are based on full time faculty. Competitors who have operating deficits have a huge advantage over GWU in delivering educational services per dollar of student tuition revenue. A comparative analysis of the local competitive situation of GWU versus Georgetown University and American University is provided in Table 1 below. Georgetown operates at a small operating deficit and American actually runs an operating surplus that is about half that of GWU. The consequences for salaries, part time instruction, expenditure on full time faculty per FTE student, and other important indicators are evident in the table.
### Table 1

**College comparison worksheet:** U.S. News and A. Yezer,

<table>
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<th>School</th>
<th><strong>American University (DC)</strong></th>
<th><strong>George Washington University (DC)</strong></th>
<th><strong>Georgetown University (DC)</strong></th>
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<tr>
<td>Public/Private</td>
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<td>Private</td>
<td>Private</td>
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<tr>
<td>Founded</td>
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<td>1821</td>
<td>1789</td>
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<tr>
<td>Fraction Full Time</td>
<td>0.79</td>
<td>0.67</td>
<td>0.85</td>
</tr>
<tr>
<td>Classes with under 20 students</td>
<td>45%</td>
<td>56%</td>
<td>58%</td>
</tr>
<tr>
<td>Classes with 50+ students</td>
<td>3%</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Graduation rate*</td>
<td>71%</td>
<td>79%</td>
<td>94%</td>
</tr>
<tr>
<td>Cost</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition 2008-09</td>
<td>$32,816</td>
<td>$40,392</td>
<td>$37,536</td>
</tr>
<tr>
<td>Tuition 2007-08</td>
<td>$31,425</td>
<td>$37,030</td>
<td>$36,140</td>
</tr>
<tr>
<td>Net Tuition 2008-09</td>
<td>$24,513</td>
<td>$26,012</td>
<td>$27,326</td>
</tr>
<tr>
<td>Room 2008-09</td>
<td>$8,258</td>
<td>$9,500</td>
<td>$8,600</td>
</tr>
<tr>
<td>Financial Aid**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students receiving: Need-based grants</td>
<td>33%</td>
<td>39%</td>
<td>36%</td>
</tr>
<tr>
<td>Need-based self-help aid</td>
<td>41%</td>
<td>34%</td>
<td>35%</td>
</tr>
<tr>
<td>Percent of need that was met</td>
<td>63%</td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td>Average financial aid package</td>
<td>$24,169</td>
<td>$33,809</td>
<td>$27,317</td>
</tr>
<tr>
<td>Average need-based grant</td>
<td>$11,993</td>
<td>$20,513</td>
<td>$21,041</td>
</tr>
<tr>
<td></td>
<td>University A</td>
<td>University B</td>
<td>University C</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Average need-based loan</td>
<td>$8,141</td>
<td>$7,014</td>
<td>$3,600</td>
</tr>
<tr>
<td><strong>Admissions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selectivity</td>
<td>more selective</td>
<td>more selective</td>
<td>most selective</td>
</tr>
<tr>
<td>Acceptance rate</td>
<td>53%</td>
<td>38%</td>
<td>22%</td>
</tr>
<tr>
<td>Number of applicants</td>
<td>15,058</td>
<td>19,426</td>
<td>15,070</td>
</tr>
<tr>
<td>Average high school GPA</td>
<td>3.5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>SAT/ACT (25/75 percentile)****</td>
<td>1170-1370</td>
<td>1190-1380</td>
<td>1290-1490</td>
</tr>
<tr>
<td><strong>Student Satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman retention rate</td>
<td>88%</td>
<td>92%</td>
<td>97%</td>
</tr>
<tr>
<td>Alumni giving rate</td>
<td>16%</td>
<td>11%</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Student Body</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity***</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Fraternity members</td>
<td>14%</td>
<td>16%</td>
<td>0%</td>
</tr>
<tr>
<td>Sorority members</td>
<td>16%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>Students living off campus</td>
<td>25%</td>
<td>34%</td>
<td>28%</td>
</tr>
<tr>
<td>Net tuition/student</td>
<td>24,513</td>
<td>`</td>
<td>26,012</td>
</tr>
<tr>
<td>Discount Rate</td>
<td>0.253</td>
<td>0.356</td>
<td>0.272</td>
</tr>
<tr>
<td>Salary 2007-08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full</td>
<td>$136,100</td>
<td>$128,500</td>
<td>$148,600</td>
</tr>
<tr>
<td>Assoc</td>
<td>$90,000</td>
<td>$93,000</td>
<td>$97,000</td>
</tr>
<tr>
<td>Ass’t</td>
<td>$70,000</td>
<td>$76,000</td>
<td>$76,000</td>
</tr>
<tr>
<td>Cost/FTFaculty*</td>
<td>$140,000</td>
<td>$137,000</td>
<td>$152,000</td>
</tr>
<tr>
<td>Net Tuition/FTFac</td>
<td>3.1</td>
<td>3.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Expenditure on FTFac Per Student</td>
<td>$7,909</td>
<td>7,062</td>
<td>$11,783</td>
</tr>
<tr>
<td>Tuition+Room 2008-2009</td>
<td>$41,074</td>
<td>$49,892</td>
<td>$46,136</td>
</tr>
</tbody>
</table>

*weighted salary x 1.25 to include benefits.
FTFac = full time faculty
ACTIONS OF THE EXECUTIVE COMMITTEE

At the request of Executive Vice President Lehman, the Executive Committee has referred a proposed new Patent Policy (which would replace the existing Policy on Patents and Scholarly Works) for joint consideration by the Professional Ethics and Academic Freedom Committee and the Research Committee.

The Joint Committee of Faculty and Students has approved a proposed resolution to amend the University’s Equal Employment Opportunity Policy by including a statement that the University does not unlawfully discriminate on the basis of “gender identity or expression.” The Executive Committee forwarded the proposed resolution to the University’s Office of General Counsel and requested the advice of that Office on legal issues related to the resolution. Yesterday, the Office of General Counsel advised that the proposed resolution is “legally sufficient.” The proposed resolution has been placed on the agenda for the Executive Committee’s next meeting on April 24, 2009.

PERSONNEL MATTERS

In my last report, I referred to two faculty grievances that originated in the Columbian College of Arts and Sciences. In the first grievance, the Dispute Resolution Committee has voted to affirm the decision of the Hearing Committee, which found that the faculty grievant failed to allege facts sufficient to state a grievance under the Faculty Code. In accordance with the grievance procedures established by the Faculty Code, that grievance has been dismissed and the matter is deemed closed. The second grievance remains in the hearing stage.

OTHER MATTERS

Waivers of Searches for Research Faculty in the School of Public Health and Health Services

Executive Vice President Lehman has advised Interim Dean Josef Reum of the School of Public Health and Health Services (SPHHS) and the Executive Committee that, effective March 1, 2009, the Office of Academic Affairs will no longer approve waivers of searches for new appointments of research faculty in the SPHHS, in view of the participation of research faculty in the governance of SPHHS pursuant to the footnote on page 18 of the Faculty Code.

Annual Reports

Chairs of Senate Standing Committees who have not yet submitted their Annual Reports should do so prior to the first meeting of the Senate’s 2009-10 session on May 8.

Next Meeting of the Executive Committee

The 2008-09 and 2009-10 Executive Committees will hold a joint meeting on April 24, 2009, to establish the agenda for the Faculty Senate’s meeting on May 8th and to make nominations for Chairs and members of Senate Standing Committees. If any faculty members have not yet indicated their interest in serving on any of the Standing Committees, please advise the Senate
Office before April 24th. Resolutions, reports and other matters for the Senate meeting on May 8th should also be submitted prior to April 24th.

Statement of Appreciation

I wish to express my deep appreciation and gratitude to my colleagues on the Executive Committee, to members of the Faculty Senate and its Standing Committees, to Parliamentarian Steve Charnovitz, and to Ms. Sue Campbell, Coordinator of Senate Activities, for their dedicated service during the past year. It has been my great pleasure and privilege to work with all of you.

Respectfully submitted,

Arthur E. Wilmarth, Jr., Chair
Faculty Senate Executive Committee