

Minutes of the Research, Outreach and Economic Development Committee

**The University of Tennessee
Board of Trustees**

**June 17, 2009
Knoxville, Tennessee**

The Research, Outreach and Economic Development Committee of the Board of Trustees of the University of Tennessee met June 17, 2009, in 160 Plant Biotechnology Building, on the campus of the Institute of Agriculture, in Knoxville, Tennessee.

I. Call to Order

Mr. Don Stansberry, Chair, called the meeting to order at 8:15 a.m. He asked Dr. David Millhorn to call the roll.

II. Roll Call

Dr. Millhorn called the roll and the following voting members were present:

Mr. Don Stansberry, Chair
Mr. Crawford Gallimore
Ms. Monice Moore Hagler
Mr. Doug Horne
Mr. Jim Murphy
Ms. Betty Ann Tanner

The following non-voting members were present:

Mr. Tyler Forrest
Dean Dick Gourley
Dr. Verbie Prevost
Ms. Sharon Rollins
Dr. Jan Simek
Mr. Glenn Turner

Commissioner Ken Givens, Dr. Richard Rhoda and Commissioner Tim Webb were absent from the meeting.

Dr. Millhorn declared a quorum present for the meeting.

III. Approval of Minutes of the Last Meeting

Mr. Stansberry stated minutes of the February 27, 2009, meeting in Memphis had been sent for review and were in meeting notebooks. Mr. Stansberry said he would accept a motion to approve the minutes. Mr. Gallimore moved the minutes be approved and Ms. Hagler seconded the motion. No discussion took place and there were no dissensions in voting to approve. Mr. Stansberry announced the motion approved.

Dr. Millhorn asked to recognize Dr. Angie Bukley. Dr. Millhorn stated that a year ago he asked Dr. Bukley to serve as Interim Associate Vice President of the UT Space Institute. She agreed to serve in this position and she has done a great job over the last year. Recently Dr. Bukley was given an opportunity to take a position at the International Space University in France, which she subsequently accepted. Dr. Millhorn congratulated Dr. Bukley on the good job she has done in leading the Space Institute with its strategic plans and noted she has done credit to the Space Institute and the University of Tennessee. Dr. Bukley received a round of applause in appreciation of her service to the University.

IV. Institute of Agriculture Overview

Mr. Stansberry recognized Dr. Joe DiPietro, UT Vice President for Agriculture (UTIA), to present an overview of the Institute of Agriculture. Dr. DiPietro said he appreciated this opportunity to better acquaint Trustees with the nature and operations of the Institute of Agriculture. In particular, Trustee Andrea Loughry had asked for an overview of "Ag 101."

The Institute of Agriculture contains four components: UT Extension Service, College of Agriculture and Natural Resources, UT AgResearch (Experiment Station), and the College of Veterinary Medicine. These are important portals on the University for students through academic programs and for outreach opportunities in a teaching hospital, research and education centers, and in the county and regional Extension offices and 4-H Centers. Within Extension there are 95 county offices, three 4-H Centers, and three Regional offices across the state. There are approximately 1150 employees within these areas, creating in effect a state-wide campus. Within the Research Education Center there are 565 AgResearch employees who work across the state. In the College of Veterinary Medicine there is a Veterinary Hospital which is yet another interface with the public for the University. The name of the former UT Experiment Station operation is now called UT AgResearch, primarily to help with public understanding and marketing of the function of these enterprises. There are 10 AgResearch Centers across the state. They are in the business of discovery, innovation of that discovery, and application of that discovery to the world. These 10 locations are places where activities take place such as assessing the quality of soy beans and cotton or the trials to decide where a particular rose grows best. For instance, "Knock-Out Roses" are a result of work at these locations. The AgResearch Centers are the largest classrooms and the biggest

laboratories the University has across the state. Approximately 15-20,000 people visit on “field days” each year. The 2009 Field Day Schedule has 15 events from May 30 (a Tennessee Healthy Hardwoods topic at the Forest Resources Research & Education Center in Oak Ridge) to October 17 (a Fall Folklore Jamboree at the Research & Education Center in Milan). These are educational and outreach opportunities in that faculty and Extension specialists are on hand to educate people about the latest approaches to their business operations, homes and yards. Some of the AgResearch Centers have beef and dairy cattle. Animal assistance is available to the cattle industry. The beef industry has seen the biggest single farm gain in commodities in the state of Tennessee. Dr. DiPietro emphasized that most of these Centers are not fully funded. They are expected to generate revenue from the sale of these commodities properties in order to make ends meet. In some cases the Centers are nearly or entirely self-sufficient. The Forest Research Education Center and the Ames Research Center are in this category in the Western part of the state.

Other UTIA state-wide initiatives include the Agricultural Policy Analysis Center; Center for Community Health Literacy; Center for Native Grasslands Management; Center for Profitable Agriculture; Center for Tobacco Grower Research; Center for Wildlife Health; Food Safety Center of Excellence; Forest Products Center; Soil, Plant and Pest Center; Southeastern SunGrant Center; Tennessee Biofuels Initiative; UT Gardens (one in each West and East Tennessee); and the UT Obesity Research Center.

There is an Extension Office in every County, and there are also three Regional Offices (Jackson, Nashville and Knoxville) and three 4-H Centers in the state (Columbia, Crossville and Greeneville). Over 300,000 students are enrolled in the 4-H programs, making Tennessee the largest such program in the nation. As mentioned at the last Board of Trustees’ Research, Outreach and Economic Development Committee meeting, the Milan 4-H Center will be closing; however, there is every intention to have another Center developed in West Tennessee. These Offices and Centers provide educational programs and research-based information to citizens statewide. They work with farmers, families, youth and communities to improve people’s lives by addressing problems and issues at the local, state and national levels. There were more than four and a half million contacts this past year and this number is increasing. AgResearch is customer-oriented and research education-solution-directed, providing high visibility and goodwill for the University in Tennessee and the world.

Dr. DiPietro presented a video interview illustrating the kind of critical help and personal commitment the UTIA faculty and staff bring to citizens. The video showed Extension staff helping farmers after the devastating tornados in 2008. Ken Roark, a five-generation farmer in Macon County, gave heartfelt testimony to the tremendous help given by Extension agents to him and many others by rounding up stray livestock, gathering donations of hay and feed, educating them on food safety and providing clean-up assistance.

Dr. DiPietro outlined the department and faculty appointment structure of the College of Agricultural Sciences and Natural Resources (CASNR), Extension and Research. There are eight departments: Agricultural Economics; Agricultural Leadership, Education and Communications; Animal Sciences; Biosystems Engineering and Soil Science; Entomology and Plant Pathology; Food Science and Technology; Forestry, Wildlife and Fisheries; and Plant Sciences. Faculty appointments are 12 months, joint assignments (teaching, research, extension) on campus and off-campus based. Dual appointments add to the level of productivity of faculty members. It is advantageous to have teaching faculty undertaking research or for an Extension agent to have a teaching appointment.

CASNR areas of study are: Agricultural Communications; Agricultural Economics; Agricultural Education; Agricultural Science; Agronomy; Animal Science; Biosystems Engineering; Environmental Science; Food Science and Technology; Forestry; Horticulture; Landscape Design; Plant Biotechnology; Plant Sciences; Pre-professional (dental, law medicine, pharmacy, veterinary medicine); Pre-veterinary Medicine; Soil Science; Turfgrass Science; and Wildland Recreation. New undergraduate concentrations and graduate majors are: Bioenergy in Plant Science, Biotechnology in Plant Science, Wildlife Health in Wildlife and Fisheries Science, Joint MS in Landscape Architecture, Joint MS-MBA in Agricultural Economics and the MBA program in the College of Business Administration. Not only is CASNR preparing students for life in the future with new concentrations in bioenergy and a new landscape architecture major, it is preparing them for real life through experiential learning. When Orange Goes Green, classroom learning is transformed into practical experience and compassion. Plant Sciences majors are part of a group called "Green T," horticulture and landscaping majors who give their time to help their communities. Dr. DiPietro showed a video interview which illustrated this "Green T" approach in a situation where students helped improve the yard of a widow of a Fort Campbell soldier who died in Bagdad. This service, the Green T students testified, meant as much to them as it did to Mrs. Herrera.

Another component of the UTIA is the College of Veterinary Medicine (CVM). Its purposes are to graduate highly competent entry-level veterinarians, to develop specialty-trained veterinarians, to produce talented research scientists, to discover new knowledge to advance animal, human and environmental health, to deliver Veterinary Medical Center quality patient care, and to provide society veterinarians with strong public health knowledge. Within the Veterinary Medical Center, patient examinations for FY2008 totaled 30,448. Dogs accounted for 36 percent of the examinations, 6 percent cats, 10 percent exotics, and 48 percent large animals (37 percent of large animals were farm animals and 11 percent were horses). There is an abundance of interaction with clients and owners, primarily from East Tennessee, but some are trucked from Middle and West Tennessee as well. A diagnostic facility is also a part of the CVM, which, along with the Tennessee Department of Agriculture, assists owners in determining why an animal died.

Dr. DiPietro concluded his presentation with statistics provided through scientifically- and randomly-conducted telephone surveys by faculty of the Human Dimension Research Lab, Department of Forestry, Wildlife & Fisheries, looking at how satisfied people are with various Agricultural and Natural Resources agencies and organizations. The surveys revealed 73.1 percent of customers were somewhat or very satisfied with UT Extension. Tennessee State Parks ranked #1, UT Extension ranked second, Tennessee Farm Bureau ranked #3, UT AgResearch ranked 4th and UTIA ranked 5th when respondents ranked 12 agencies by level of satisfaction. One-quarter of Tennessee residents said they have visited a UT Research and Education Center or farm. Ten percent of residents have attended a UT Field Day and of those 40 percent have also attended other demonstrations, seminars or workshops presented by UTIA. These rankings and responses show UTIA is getting to the people, they are satisfied and they recognize UTIA's ability to help them. UTIA seeks to increase these numbers and are driving their programs more toward urban communities, too. Dr. DiPietro said he hoped his presentation showed UTIA is quality-oriented, collaborative, adaptive, responsive, entrepreneurial and accessible, and is in the business of providing solutions to advance plant, human, animal, environmental and economic health across Tennessee and the nation.

Mr. Gallimore asked how many students were in the MS Landscape Architecture program. Dr. DiPietro responded that this number is right at 30 students. Mr. Nemcik asked if there was any licensing as a result of UTIA research activities. Dr. DiPietro noted that licensing was an active component of the research programs and commented on some of these products, including seed cultivars and the Appalachian Spring dogwood. Mr. Talbott asked if UTIA assisted farmers in managing market futures accounts. Dr. DiPietro noted this assistance is given through a farm management and program workshop. Discussion took place concerning how various dairy crops and cattle markets are fairing in the economy. Ms. Tanner asked what UTIA's role was in the Knock-Out rose production. Variety testing and trial work was done, Dr. DiPietro said, to assess Knock-Out roses versus other types of roses. Knock-Outs were determined to be virtually bullet-proof in regard to insects and climate toleration.

Mr. Stansberry thanked Dr. DiPietro for his most informative report.

V. Annual Report of UT Research Foundation

Mr. Stansberry noted that the formal report of the UT Research Foundation (UTRF) was found under Tab 22 of the Trustee meeting notebooks. He reminded members of the discussion at February's ROED Committee meeting in Memphis where comments were invited on how to improve the UT Research Foundation organization. He received many thoughtful and constructive memorandums and comments on this topic, resulting in some fairly dramatic changes which have been made in the UT Research Foundation structure. The UT Research Foundation is retained but two executive committees have been created for the Foundation. One committee will focus on the UT Health Science

Center (HSC) in Memphis and the medical technologies it develops and one committee, the Multidisciplinary Office (MDO) in Knoxville, will focus on the other units of the University, with the idea being to push down the real work of the Foundation to the pertinent campus, faculty and dean levels for closer oversight and development.

Mr. Waymon Hickman is the Chair of the new UTRF Board of Directors. Mr. Hickman is a former UT Trustee and Chairman Emeritus of First Farmers and Merchants Bank. Other members are Murray Deal, Vice President, Eastman Chemical Company; Ed Kraft, Chief Technologist, Arnold Engineering Development Center; Tom Ballard, Director of Partnerships, Oak Ridge National Laboratory; Don Stansberry, Chair of Research, Outreach and Economic Development Committee and UT Board of Trustees, ex officio); Charles Wharton, UT Trustee member of the Multi-Disciplinary executive committee, non-voting; Karl Schledwitz, UT Trustee member of the Health Science Center executive committee, non-voting; Wayne Davis, Chair of Multi-Disciplinary executive committee, Dean of the College of Engineering at UT Knoxville; Dick Gourley, Chair of HSC executive committee, Dean of the College of Pharmacy, UTHSC in Memphis; and Fred Tompkins, UTRF President, non-voting and ex-officio.

On the Multi-Disciplinary Executive Committee, Dr. Wayne Davis is Chair. Other members include Bill Brown, Dean and Director, UT AgResearch; Tom Rogers, Director of Industrial and Economic Development Partnership, ORNL; Jayesh Doshi, President and CEO, eSpin Technologies, Inc.; Charles Wharton, UT Trustee representative; Don Stansberry, Chair of Research, Outreach and Economic Development Committee, UT Board of Trustees, ex-officio; and Fred Tompkins, UTRF President, ex-officio.

Dr. Dick Gourley, Dean of the College of Pharmacy, UTHSC in Memphis, is Chair of the Health Sciences Center (HSC) Executive Committee. Other members include Karl Schledwitz, UT Trustee representative; Larry Pfeffer, Professor, Department of Pathology, UTHSC in Memphis; David Stevens, Chairman of the Board, Wright Medical Group, Inc.; Frank Chan, Senior Director of Research, Medtronic; Don Stansberry as Chair of the Research, Outreach and Economic Development Committee, UT BOT ex-officio; and Fred Tompkins, UTRF President, ex-officio.

Mr. Stansberry introduced Dr. John Hopkins, UTRF Vice President of the Multi-Disciplinary Office, and Dr. Richard Magid, UTRF Vice President, Health Science Center.

Mr. Stansberry noted some exciting and hopefully productive changes have been made to the Research Foundation. He invited Dr. Gourley to discuss the role of both the Executive Committees in the absence of Dr. Wayne Davis, who was out of town and unable to attend the meeting. Dr. Gourley presented a power-point presentation covering the new organization and structure of the Research Foundation, which has been two months in the making. During that time a new structure for the UTRF has been created and the administrative Executive Committees have been composed. Dr. Gourley discussed the Executive Committee compositions and the strengths the

particular members bring to the new organization. For HSC there is an Advisory Committee composed of representatives of all five HSC colleges and the Memphis Bioworks Foundation. The Advisory Committee for the Multidisciplinary Office has representatives of the other UT campuses and institutes. Dr. Gourley believes there is an excellent pool of individuals to undertake the work of the newly-restructured Research Foundation. Full faculty buy-in with a good understanding of the functions, resources and participation is critical to the success of the UTRF. The first meeting of the HSC group is scheduled for June 19. At this meeting the functionality of the Executive Committee, utilization of the Advisory Committee, and a study of plans for the next 12 months will be addressed. The Multidisciplinary group will be holding similar meetings. The two Executive Committees will work as a functional group. In this manner, a budget has been formulated for this coming year. The biggest challenge for the new organization is educating UTRF constituents to know what UTRF is doing and then getting to the next point--funding. There is an opportunity to be self-sufficient in this regard but this will not be a quick fix. UTRF will be meeting with college and administrative units on each campus to provide information to them on intellectual property and other functions. This kind of faculty orientation and give-take discussion on what they want and need from UTRF is critical to a successful relationship and undertaking. Engaging alumni is also essential in helping drive UTRF success.

Dr. Gourley gave a reality check on the timeline of drug development process of discovery to revenue. He gave the example of GTx, founded in 1997, giving licensing, clinical and phase trials dates, ending with potential first sales anticipated for approximately 2011, demonstrating the long-term investment involved in the process. The average life of developing a technology from invention disclosure to net positive revenue at UTRF is about 30 months and that is for the small number of technologies (roughly 2 out of a 100) to reach this point. It is vital to increase the number of invention disclosures to raise the ratio of resulting successful, revenue-producing technologies. Dr. Gourley showed a graph of the current UTRF portfolio depicting those of the HSC and MDO respectively (MDO 469 active disclosures, HSC 247; MDO 251 active patents, HSC 164; MDO 170 active US patents, HSC 96; MDO 78 active licenses, HSC 66). Progress is being made, Dr. Gourley said, but there is a long way to go. He stated that at the fall Board of Trustees meeting a spreadsheet will be presented which gives a status and expectations of the portfolio of UTRF investments.

Mr. Cates inquired about the rationale for the greater percentage of HSC success results than for the MDO group. Dr. Gourley responded that the HSC is a more focused area in functionality; having the ability to license products, to partner with health care institutions and to have pharmaceutical companies look to the HSC to develop its products are advantages in the process. Dr. Gourley emphasized the importance of publicizing UTRF portfolio information among the Board members and others at the University to enable visits and discussions with potential investors to discuss opportunities for investing in the technologies being developed at UTRF.

Dr. Gourley announced that the new UTRF is beginning with a balanced budget reflecting the revenues and expenses of each office. There is a separate budget for each unit, but the units work in a collaborative manner. Dr. Gourley discussed a number of budget legacies from the former UT Research Foundation organization. These included issues such as the UTRF reserve funds are held by UT and are not truly accessible to cover expenses. With any new disclosure approved after July 1, 2008, the first \$5,000 revenue goes immediately to the inventor and then revenue goes to the campus, as well as to UTRF and the academic units. As it relates to legacy disclosures (before 7-1-08) those funds are distributed once a reserve fund is reached (\$2M aggregates or \$1M per academic unit). Currently the reserve fund is approximately \$1.7M in aggregates. However, the majority of the reserves (\$965,000) is held by UT and is not readily assessable to UTRF. Every unit within the University contributes to the process of UTRF, but the dollars are held by UT and not UTRF. These funds cannot be easily reallocated to accommodate strategic shifts or unexpected expenses. Because of the hybrid funding model, there are artificial firewalls between IP expenses and operational expenses. Finding a way to change this model to enable one set of funds with UTRF is extremely important in the functionality of the process.

Dr. Gourley complimented the excellent staff of UTRF; however, there is a tremendous challenge ahead to increase economic development with marketing and sales in Tennessee and for the University. Joy Fisher, with UTRF now for two years, is the first marketing employee of UTRF. Also, there is now an excellent partnership with the UTK College of Business, where MBA students are looking at the total UTRF process and offering best-practices advice and other valuable information. Looking at how we structure UTRF finances is critical as the Research Foundation moves forward.

Dr. Gourley gave highlights of UTRF accomplishments. In the last four years there have been 14 startups in UTRF. The more investment in academic units in terms of research and research infrastructure, the greater their ability will be to increase revenue and maintain faculty retention. UTRF is positioned to leverage local and state support to increase research-based entrepreneurship. Examples of the biofuels initiative, Genera Energy LLC, was cited, as well as funds available for technology development through TTDC grants to UT inventors, partnerships with regional ED groups (Bioworks, Tech2020) and incubator management.

UTRF is educating the UT faculty about startup opportunities and available support infrastructure. Meetings with groups such as the Faculty Senates as well as with individual colleges within the University will take place concerning the development of intellectual properties and other aspects of the UTRF process. By fall, UTRF will have prepared a strategic plan as far as short-term and long-term goals.

Mr. Cates asked for an example about a statement on one of the power-point slides, "A shift in focus to short-term revenue maximization would diminish UTRF's ability to grow businesses and create jobs in Tennessee." Dr. Gourley replied that solving UTRF's

budget issues in the short-term is most unlikely. It is a long-term investment in this process. Mr. Schledwitz said the successful development of UTRF is critical for UT in becoming a premier research institution, in attracting and maintaining faculty, and in creating a future source of revenue for the University. He saluted Mr. Stansberry in taking on the challenge of reorganizing UTRF and the time he has devoted to this process, working with Dr. Tompkins and his staff in making the transition from the old to the new structure. Mr. Schledwitz noted the excitement of the changes in Memphis; however, he cautioned that time and patience will be essential to moving forward in this endeavor. It will not be an overnight solution, but it will be one of the most important long-term initiatives in transforming the University.

Dr. Gourley spoke of an effort undertaken six years ago by the UTHSC Chair of Pharmacology in the College of Medicine and the Chair of Pharmaceutical Sciences in recruiting two impressive scientists from the University of Kentucky. UTHSC was able to put together a \$2M package but space was an issue. The scientists went back to Kentucky, where the Office of Economic Development enabled giving both of them Endowed Chairs and invested \$5M in their startup companies. There are now six companies sponsored from this initiative. Tennessee does not have a resource like this, but to grow economic development and attract such scientists, the state must invest in such endeavors with facilities and funding. This issue must be addressed because it is absolutely critical to the future of the University and of Tennessee.

Mr. Stansberry thanked Dr. Gourley for the work and progress being made. He applauded Dr. Gourley and Dr. Davis for the energy and enthusiasm they have given to the restructuring process of the Research Foundation.

Ms. Loughry asked how this new and improved UT Research Foundation will affect the citizen inventor in such initiatives as addressed by Dr. DiPietro in his UTIA presentation. Dr. DiPietro noted an example of this in the Extension and AgResearch assistance taking place now in West Tennessee with a citizen inventor proposing to use air to create cotton (and surprisingly good reports have been given by the involved Ag agents and engineers). UTIA is continuously in this kind of activity. Dr. Gourley noted that UT alumni also present such opportunities. Dr. Hopkins said UTRF is open to receiving inventions from Tennessee citizens and there is a process in place for them. Mr. Stansberry added that these are volume-driven decisions. Along this line he anticipates a future UTRF executive committee devoted exclusively to agricultural inventions, but this and other aspects will be discussed at future Board of Trustees meetings.

Mr. Horne inquired about the membership composition of the UTRF Board and the Executive Committees and Mr. Stansberry went over the membership of these groups. Dr. Millhorn noted that individuals had been added to the groupings who understand the business of intellectual property, citing examples of the inclusion of Murray Deal of Eastman and the experience of Ed Kraft with the Air Force and UT's relationship with Arnold Engineering Development Center. Mr. Horne emphasized the need for Trustee

involvement with members of the Legislature, joined by Interim President Simek and Vice President Dye, to push for the resources to compete with others, as in the illustration of the scientists' recruitment with Kentucky.

Mr. Stansberry thanked the Board for their continuing interest in and promotion of the work and success of the UT Research Foundation.

VI. Federal American Recovery and Reinvestment Act (ARRA) Update

Mr. Stansberry introduced Dr. Blake Thompson, who is Director of the Office of University Research and Educational Partnerships at ORNL and Special Assistant to UT Executive Vice President David Millhorn (Dr. Thompson subsequently has accepted a Vice President's position with Battelle in Columbus, OH), to give a follow-up report and update of his Federal American Recovery and Reinvestment Act (ARRA) presentation at the February Board meeting in Memphis. Dr. Thompson said great progress has been made in the stimulus proposal process. He reminded members of the two major mechanisms for stimulus funds: Federal Appropriations and State Fiscal Aid. UT is actively working on both types. The process spans the major federal agencies (Ag, Energy, Commerce, Defense, HHS, Education), is one-time funding over two years, energy is the key theme, and the focus is on major collaborative projects. It is an RFP-type process where researchers propose funding through standard mechanisms. The stimulus package is roughly equal to the annual discretionary spending of the U.S. An institutional priority-setting process within a committee structure was formulated for the University.

Capacity questions of the federal government have begun to arise. Funding is not getting out to recipients as quickly as expected; however, UT anticipated this occurrence and the delay has allowed time to continue to be involved and to generate proposals. The RFP-type process is one in which faculty members are accustomed and this is to our advantage. Within the process there is limited access to federal agencies by registered lobbyists which limits information flow-back. However, UT has been able to engage federal agency officials without this involvement. Congress still wants to be involved but, as with an actual federal budget process, once the funds are appropriated there have been no earmarks or direct guidance given by the Congress as to how these funds will flow. Significant federal oversight is anticipated, with audits and other strenuous monitoring formats on the use of these funds and we must be prepared for this aspect of the process.

In preparing for the ARRA activities, a committee was established soon after the last Board meeting. Its membership is very broad and inclusive, with campus, institute and Trustee participation. Meetings were held with all the units with senior leadership including each unit's chancellor, chief financial officer and chief research officer, to determine priorities and what needs to be done to help in the process. Minutes of these sessions have been distributed on a regular basis. Dr. Thompson noted the credit

for the productivity of these meetings goes to each of the campuses and the tremendous efforts of faculty and staff at these units to generate proposals to begin the submission process.

Early on several UT System-wide initiatives were identified as having major impact in the proposal process. The UT Biofuels Initiative is an example of UT working directly with federal agencies without lobbyist assistance. Dr. Millhorn, Dr. Kelly Tiller and others met in Washington, DC for these sessions prior to the finalization of the RFPs. UT is in partnership with DuPont-Danisco to go forward on a collaborative \$50M proposal (possibly doubled in this amount by a DuPont match). For the Rural Broadband Program initiative there is a potential of \$7B in funding, likely to go to the state. UT has provided leadership by UT CIO Scott Studham and others, as well as data, mapping, grant-writing and other services as participants in the State Broadband Committee to facilitate the Broadband initiative. Mr. Stansberry has also been involved in this initiative, which will have the capability of UT reaching out across the state with regard to distance education, Extension, Library and other functions. The STEM education initiative is a smaller funding opportunity and the least developed state-wide initiative. However, Dr. Bonnie Yegidis has pulled together a broad group across UT campuses and other universities, high schools and multi-organizations (Oak Ridge Associated Universities, etc.) providing, among other things, opportunities as a forum for talking about educational issues. The Joint UT/ORNL Solar Institute has potential for coupling very nicely with some of the strategic investments UT and ORNL are going to make, and an update on this initiative will be given a later Board meeting.

Dr. Thompson gave highlights of major priorities campus by campus as they stand currently. At UTK \$12M is proposed for cyberinfrastructure and \$8M for supercomputing (NSF/TeraGrid and NIH/Bio-med supercomputing, submitted February and May 2009, pending); Dougherty (\$2-5M) and Walters (\$10M) Halls, proposals are ready, due July/August 2009; major equipment grant to NSF (\$5-6M), proposal is ready, due August); and there are approximately 75 PI proposals totaling \$64.M, as well as 13 sustainability/energy or infrastructure proposals totaling \$19.8M (ex. include window replacements, transformer, etc.). The UTIA major proposals include Tennessee Shapes Up (\$10M); Natural Resources Campus (\$60M); Distance Education; STEM Outreach; three NIH facility improvement projects totaling \$20M; 21 Ag and CVM PI-driven projects totaling \$35-45M; General Related Proposals totaling \$6.25M; and a major partnership with DuPont Danisco of \$50M to DOE with DuPont match. The UTHSC has the most proposals generated with an estimated 118 totaling \$70-85M. These include three major NIH/NCRR Research Facilities improvement proposals totaling \$20-35M, July deadline; 11 shared equipment grants totaling \$4.1M; 71 NIH PI-driven "Challenge Grant" proposals totaling \$35.5M; 27 NIH PI-driven Supplement proposals totaling \$6M; and 6 NIH agency-specific initiatives totaling \$3.6M.

Strategic investments for UTC include the replacement of a central boiler (\$3.4M); Campus Safety and Security (\$3.3M); other upgrades \$700K; Sustainable Energy Center,

\$15M proposal submitted in April 2009 to DOE; 7 additional PI-driven proposals totaling \$5-10M; Energy Demonstration Partnership with City of East Ridge, \$2-5M. UTM priorities include Security Light and Camera Upgrade; STEM equipment; Small Cities Block Grant (with Martin); Assistance to Rural Law Enforcement totaling \$5.1M; submitted to Department of Education, DOE and Department of Justice; Teacher Quality (partnership with TN School Systems, TSU, TBR), with approximately \$4.5M to Department of Education. At the UT Space Institute, priorities include Material Science and Physics; Molecular and Cellular Dynamics; Low-wind speed turbines; Tech-based job creation; Airborne Science totaling \$14.8M; and includes NSF, NIH, DOE, DOD, NASA. At IPS major priorities include ForTech; Rural Law Enforcement Training; CyberCrime (\$8M total), all with the Department of Justice; and 9 other proposals totaling \$14M.

In summary, Dr. Thompson stated he believed the committee structure had proved effective, progress was made, and he again credited senior leadership in this success. The process has been taken very seriously by all units. Four state-wide strategic initiatives have resulted (Biofuels, Rural Broadband, State-wide STEM Education, and Solar Institute). The most revealing statistic is the almost 275 campus-generated, largely PI-driven proposals totaling somewhere between \$330-370M, which is roughly equivalent to the annual research budget for the University. These proposals span the funding agencies, with most due during summer to fall months. People have stepped up to present important opportunities for the University within the ARRA funding process.

Future directions and questions, stated Dr. Thompson, include questions concerning ongoing support of the proposals (even the PI-driven proposals) and questions regarding if the funding agencies can be influenced through Congressional delegations or through relationships with federal agencies. Close federal oversight is anticipated and we must be highly thoughtful in our responses to the federal agencies. Dr. Thompson noted there will be significant ORNL funding, primarily focused on environmental management and clean-up. ORNL is immersed in the same process as UT in identifying potential proposal areas.

Mr. Murphy asked about the timeline for notification of proposal awards. Dr. Thompson responded that this will be a typical submission-review process of about 3-6-9 months' duration. Dr. Millhorn noted 5-6 proposal awards have already been received at the UTHSC. Dr. Fenwick, UTK VC for Research and Engagement, noted the intense competitive level of the awards. Mr. Schledwitz asked if the University had adequate resources to maximize our efforts in this one-time funding opportunity within this highly competitive environment. Dr. Simek responded that he believes a maximized effort is being made in this process and that funds and resources had been allocated early on to generate the greatest number of proposals, as quickly as possible, to ensure a maximum return. Dr. Thompson noted that infrastructure support and assistance have been offered across the campuses. Dr. Millhorn said promises had been given at the start of the process for providing the necessary resources for this effort. At UTK Dr. Cheek indicated that about \$200,000 had been made available for the key areas of engineering

and nursing, where most of the grants were initiated, as well as Arts and Sciences, to help accomplish the proposal work.

Dr. Thompson concluded his presentation by thanking and praising the faculty members who went about their regular jobs of teaching and researching and then took on the proposal process as well. Dr. Simek concurred that this effort was in addition to the NSF-related and other endeavors that faculty support in their normal course of work and that everyone should be extremely proud of the efforts made in this process. Mr. Stansberry thanked Dr. Thompson for his presentation.

VII. UT Information Technology Strategy

Mr. Stansberry introduced Mr. Scott Studham, UT's Chief Information Officer, to make a presentation on the UT Information Technology Strategy. Mr. Studham began by stating he had been at UT for 90 days in his position as CIO and prior to coming to UT he had been the CIO at Oak Ridge National Laboratory for the last four years. Most of the data he would provide originated with his predecessor, Dr. Jesse Poore.

Mr. Studham noted three areas for focus:

- Costs
- Security
- Strategic systems such as Banner, TERA and leveraging our SAP System to make it an enterprise-wide system allowing access of real-time information and statistics.

Much of the time during the last 90 days has been spent in deciphering real IT costs at the University. This is the area Dr. Poore spent the last year exploring as well. It is an on-going discovery process. Mr. Studham showed graphics of IT spending and noted that the numbers were intentionally missing from the graphs due to the continued high uncertainty in total IT costs. If gross cost of IT is figured, the amount for annual IT spending is estimated between \$80-90M. When the \$90M total is compared with a Gartner report on spending for UT-peer higher educational institutions, UT is spending 5.4 percent of UT's gross revenues on IT while our peers are spending 4.3 percent on IT. This would imply UT is spending \$10-20M more than other universities of our size are spending on IT. The question then becomes, why and what should be done about this discrepancy. The largest component of the "why" involves the duplication of services, where people are providing "repeat" services. For example, there are still over 100 different email servers being used. Each server requires operating and applications software (Windows, Microsoft Exchange, Lotus Notes, etc.) that could cost from \$0-\$20,000, and the hardware alone for each server costs \$2,000 each. In addition to email direct costs, there are equipment, storage, backup, and personnel costs for supporting services plus equipment, staff and telephone costs for networks and related services.

Historically, three strategies were used to try to remedy this situation. The first approach (used in 1996) was to cut the central IT budgets at each campus. The result was that costs for 1997 were the same as costs in 1996 because the staff eliminated from the central IT organizations was hired by the colleges and departments. This is largely why there currently is a fragmented IT structure in place resulting in the duplication of services and staff basically providing the same services.

The second strategy was to try to consolidate the ~750 people at UT whose jobs are classified as IT into a unilateral IT hierarchy culture. This approach proved highly stressful, created a large degree of dissatisfaction among IT staff and their departmental customers, but would have resulted in savings.

The third strategy is the one being proposed. Much thought has gone into the new strategy, as well as input from IT industry giants such as Gartner. There will be a central IT organization that is run like a business where services are provided and standardized. Campuses and departments will know what services are available from the central organization and, consequently, they can determine the amount of additional services they need for their departments. The cost savings can be recognized by the department by eliminating duplicative IT equipment and staff costs. The idea is to allow the departmental cost-savings, but to report the gross expenditure in a consistent manner.

To accomplish this, a change must be made in the way the central IT organizations are run. Mr. Studham showed a slide representing the current approach with a CIO line-organization focus. Currently, IT staff set annual project priorities from an "internal" perspective. The proposed approach will have a customer/user perspective where customers will create a list of project priorities. This approach is based on a national standard on how to run an IT organization known as ITIL. The IT priorities are developed with service-level managers working with IT customers. The central IT organization will be able to inform chancellors and campus leadership of available services and to notify them of services being duplicated on their respective campuses. Mr. Studham showed a "road map" of the IT plan to stabilize a customer-owned, core set of services whereby customers can eliminate duplicative services and reduce costs.

In 2008 former CIO Dr. Poore quantified the scope of IT at UT as approximately \$60-90M in expenditures (depending on if it was the gross or net IT cost) and 762 IT staff. Mr. Cates asked what comprised the difference in the gross and net expenditure figures. Mr. Studham replied that the difference is that one set counts recoveries coming primarily from restricted accounts. Mr. Talbott asked if the true net cost was somewhere near \$75M. This would be the approximate range, Mr. Studham said.

In 2009 IT will move to a service-level manager function and customers will set the direction. Documentation of IT contracts with existing customers, IT technical standards and security policies will be established. In 2010 departments and colleges will transition into these central services and eliminate duplication of services for recognized

cost savings. By 2011 and 2012, IT costs at UT are to be reduced to the industry average (~\$70M).

Chancellors have been most supportive in this effort. Mr. Wharton asked if UT has standardized equipment and software. Mr. Studham said it does not at the present time, but this will be done in future plans. Mr. Wharton asked if UT should have a transparent network to allow anyone within the university to access information as well as provide for the sharing of sensitive information and knowledge across the campuses. Management and CIOs at the campuses agree that secure collaboration and a community access enterprise should be in place. Below these levels, however, there is disagreement and technical resistance to commonalities.

An example of this is the need for a common User ID to enable the sharing of services and information across campuses. In the statewide ARRA stimulus capture process, one of the first goals was to set up a document-sharing location where people could log in and see real-time working documents. Clearly an IT enterprise spending \$90M a year should be able to do this. As it turned out, this goal was not possible, and UT is about 10 years late in regard to implementing this process. Each campus has its own way of dealing with IDs and account management processes, which creates a great deal of frustration when trying to implement a shared resource.

Mr. Murphy noted that if problematic management issues were occurring at levels below top management and CIO levels, this obstruction should not be tolerated and the obstructing individuals should be removed from those positions. Mr. Stansberry noted a “velvet glove” approach was often appreciated, but a more substantial approach may be required to be effective.

Mr. Studham discussed several factors, any one of which could derail the strategy of transitioning to a customer-driven central organization: Computer security is the number one concern. State-wide common identities are immediately needed in order to share services across the campuses. We need to leverage SAP as the system-wide “system of record” to allow real-time information, quickly deploy Banner (model Student Information System), and TERA (which would enable manual, paperwork-driven grant review processes). These are multi-year projects. The first fruits of TERA are anticipated this summer; the first fruits of Banner will be seen at UTC this fall (it will be a phased-in implementation of a couple of years). Mr. Studham noted that there is often difficulty in new processes; people resist change of any sort, even “good” change.

A “report card” with key performance indicators on how each campus is doing will be issued to grade factors such as:

- a) maintaining and improving security,
- b) TERA and Banner implementation,
- c) state-wide ID implementation,
- d) services and costs taking place and,

e) progress towards plans for reducing duplication.

This report card approach will help to bring visibility to what is taking place in the organization. Mr. Studham has discussed this procedure with Acting President Simek and has his support.

Mr. Stansberry thanked Mr. Studham for a clear and direct statement of what needs to be done for IT at the University. However, he stated the University of Tennessee does not have an additional \$20M and he suggested that by the end of the stimulus funds the IT strategy should be fully implemented and the savings fully realized. Dr. Simek stated the report card will help accomplish this strategy. There will be no choice to “opt out” of the plan except where there is a rational reason to do things in a different way. Dr. Millhorn added that Mr. Studham’s instructions are to “fix the problems.” He will need Trustee and campus leaderships’ support to accomplish this goal. Mr. Stansberry asked how many employees are involved with the problem areas and was told 760 in total, 350 reporting directly to Mr. Studham and the rest distributed within departments and other units.

Mr. Cates noted that within a business context the luxury of long-term negotiation for something that needs to be handled within a certain amount of time would not be considered. In addition, with the considerable number of servers across the campuses and the sense that it may not be known what is on many of these servers, each campus CIO and each department should produce an inventory of what servers they have and what is on each server. Sensitive information such as social security numbers and other such information are possibly in jeopardy. Mr. Studham said such an implementation has begun inside the central organization, although there is, to some degree, a defensive resistance to this procedure. Mr. Cates said UT is in a crisis situation and action needs to be taken to make immediate improvements.

Mr. Talbott asked for clarification in the Gartner peer number of 4.3 percent of spending as a percentage of revenue and if that number translated to \$1.8B total revenue. Mr. Studham replied that it would be \$1.6B for 2008. Mr. Talbott noted this would be a 1 percent in savings if the 4.3 percent level was reached. Mr. Stansberry said members needed to leave the meeting with a clear understanding that IT at UT would not delay deployment of strenuous means to effect adjustments for drastic improvement and asked if this mandate required an action item. Dr. Simek said the program as Mr. Studham has outlined would have the required \$~20M by the time stimulus funds have run out. Dr. Millhorn noted that IT’s strategic success is not only a matter of funds but UT’s interaction with other institutions and partners, such as our collaborative interaction with ORNL, depends on this success as well. Mr. Studham said that he is able to commit that by the end of the stimulus money UT IT will be able to quantify and track funds being spent. This will then allow University leadership to determine if more or less should be spent to strategically operate IT. The Gartner number is a target. We do not currently understand why UT is spending more than this target number. We

have the largest academic supercomputer in the world and this may mean we decide to spend more than our peers on wider-end networking. This will be a decision to be made by executive management. Currently most IT decisions are being made at the local levels.

Mr. Murphy asked for an explanation of why it is so difficult to capture IT costs. Mr. Studham said there is no standard method of accounting in place at the current time at the local levels. If computer software is purchased from a business office supply store, it is difficult to obtain this kind of transaction.

Mr. Stansberry requested that Mr. Studham take the application project timeline and break it into measureable, quantifiable, identifiable steps and present this information at the next ROED Committee meeting. Mr. Cates also suggested that this request be amended to ensure that any internal assistance Mr. Studham may need to accomplish this task be supported.

Dr. Beauvais Lyons (Chair of the University Faculty Council) was recognized by Mr. Stansberry. The members of this Council are very interested in discussing these IT issues. Most of this situation evolved over the course of years due to inadequate IT resources. From an entrepreneurial perspective, in terms of an individual investigator or faculty member with a research and/or teaching objective, there are oftentimes inadequate resources available to these individuals for the work they need to perform. There are, thus, a number of systemic problems that have created the situation with which Mr. Studham is now challenged. He noted he looks forward to working with Mr. Studham on these challenges from the faculty perspective. It is not simply a situation of individual faculty members or departments working "around the system" and being obstructionists. They are working around the system because they get better service through their own servers. The real challenge is a cultural one created by a history of inadequate IT organization. Mr. Stansberry said that no matter the cause of the problem, \$20M is not available and the IT problems at UT must be managed. Mr. Murphy noted that the luxury of having everybody "doing their own thing" in the past can no longer be tolerated. From the Board's standpoint, these issues must be addressed no matter the reason for their creation. The University cannot afford the duplicative costs associated with individuals operating under their own devices. Dr. Lyons suggested this seemed to be more a carrot than a stick mentality for this situation since faculty and their servers must be moved into a functioning centralized IT system, and asked if this is the desire of the Board. Mr. Studham again acknowledged the past history and inadequate centralized IT structure forced departments to build their local services. The proposed strategy is to operate central services in such a way as to offer departments a documented amount of storage, uptime and other functions thus allowing them to choose if they need to duplicate these functions at a local level or if the central services need to be modified.

The first step in this process is to build a service catalog committing central functions provided by centralized IT. Mr. Stansberry noted that needed services must be provided at a central level and they must be used by the local organizations. Mr. Cates asked if most applications would be on desktop or at some central-use computer location. Mr. Studham noted that most enterprise (Banner, TERA, IRIS, etc.) services are at central locations. Everything else would be on the desktop. Email and similar services are commodities which should be out-sourced to Google, Microsoft or some entity which provides email. Mr. Horne asked if a coordinating committee should be established to look at these issues. Mr. Studham noted a Technology Review Board has been established to study and discuss these ideas and issues.

Mr. Stansberry thanked Mr. Studham and noted that, in the interest of time, the next presentation on the agenda should be made.

VIII. Defense Business Research Initiative

Mr. Stansberry introduced Dr. Alex Miller (William B. Stokely Chair of Management and Associate Dean for Executive Education at UTK) for a presentation on the National Defense Business Initiative (NDBI). Dr. Millhorn gave a brief preface to the presentation by saying there are many activities taking place at the University of which the public often knows very little. This Initiative is associated with the College of Business Administration (CBA) which has grown tremendously over the last few years and brings much pride to UT as well as research dollars. Dr. Miller, Dr. Dan Stewart, Dean Jan Williams, and Mr. Dave Patterson—all present at the meeting—are to be greatly commended for these accomplishments.

Dr. Miller noted that his presentation would focus on the outreach aspects of the Center for Executive Education (CEE) and research on Aerospace-Defense Business. UT, he said, was represented at the meeting by Dr. Dan Stewart, Special Assistant, Office of the Executive Vice President, with a background in Air Force Material Command at Wright-Patterson Air Force Base, Ohio (which compares to a Fortune 25 business). Dr. Stewart was executive director of this enterprise and understands the defense needs from a business perspective. UTK is represented by Vice Chancellor for Research and Engagement, Dr. Brad Fenwick, who supports what is done in CEE in pursuit of research opportunities. The College of Business Administration is represented by Dean Jan Williams. Dean Williams has long understood the need for outreach and economic development as part of the mission of CBA. A Center within CEE, NDBI is headed by Mr. Dave Patterson. As former deputy controller for the Department of Defense, he brings an abundance of experience to this position.

Dr. Miller stated the mission of CEE, as part of a land-grant institution, is to solve real world problems, to develop and engage faculty in real world activities to improve themselves and the curriculum for which they are responsible, and to make a margin for reinvestment. The CEE began in 1970 with a facility funded by state funds, and is

operated with funds provided by program participants. CEE just moved into a new building, built by state funds with all other operations supported by self-generated income.

Dr. Miller presented a history of CEE noting that operations began with a general management program in the 80s. A big break occurred through Dr. W. Edwards Deming at UT, guru of the Quality Movement, when he sent a considerable number of participants to the CEE program. Dr. Deming also influenced Motorola to send their employees to CEE for Six Sigma training and development. In the 90s CEE's "Lean Management" program was the dominant operating process improvement paradigm, and UT was one of three such pioneering schools leading that field. Also in the 90s the part-time MBA program was remodeled into the Executive MBA program, using an innovative format that has become a new standard around the world today. In 1998, CEE began focusing on specific industries: healthcare and aerospace defense. In the first part of this decade, it was realized that CEE should be ultimately a research and development organization, seeking federal dollars to fund research and using these funds to develop new courses for students and industry. In 2008, to match synergies with other CBA work, the long-standing MBA program was brought under the umbrella of Executive Education.

Financially, CEE currently generates about \$16M in annual revenues, tripling what it generated six years ago. Cumulative revenues since CEE was created are approximately \$170M. Faculty supplemental pay to date (CEE uses its own faculty to accomplish its work) is \$45M, which is a strong faculty retention factor in the College of Business Administration. In terms of economic development, \$40M has been put into the local economy as a direct contribution (sans multiplier effects) since the inception of the CEE. Cumulatively, \$10M has been put in CBA to pay for computers, facilities upgrades, funding seed grants, funding research, and other such aspects. A quasi-endowment of \$4M (current market value) is also on hand as a rainy day fund. Payments to UTK (tuition on new degree programs over the years) total to date \$5M. CEE takes very seriously the mission goal of "make margin for reinvestment."

Dr. Miller outlined the major degree and non-degree programs of CEE. These programs are very well-respected. The Physician Executive MBA program has been ranked #1 in the U.S. for the last six years. The MBA program is ranked 27th among U.S. public institutions. With only one exception, all the programs of the CEE are national or international in scope. The one regional program, the Professional MBA degree program, was launched with the concept it would run for about three years and then there would be no more local students for the program. To the contrary, it is the CEE's most popular program with the admission of approximately 55 students a year (30 students must be turned away each year). With 250 alumni, this program is a tremendous driver of economic development in this region. The Global Supply Chain EMBA is a cutting-edge program to be launched on five continents in 2011 in

partnership with other leading schools. The non-degree programs under CEE are shortened versions of CEE degree programs and are offered as certificate courses

CEE's efforts in Aerospace Defense began at UT in 2004 and produced about \$400,000 in business that year. By the end of the current fiscal year, \$6+M annual revenue is forecast; 2010 will see \$15M. No other business school in the world is producing near this level of business in this Aerospace Defense arena. The high level of funded research in Aerospace Defense effected the creation of the NDBI. This Institute inspires national security business innovation for both government and industry by providing resources and practical assistance in creating economically efficient and effective defense business practices and acquisition programs across their life-cycles. The U.S. cannot afford to operate the way it has in the past. There are changing needs and solutions for security and the NDBI is focused on helping do all of this better, including making solutions economically efficient and effective. It is not enough just to cut costs in Defense budgets. We cannot afford for cost-efficient costs to produce ineffective solutions because too much is at stake. Defense weapon systems are being kept longer. The B52 aircraft has been flying for about 50 years and is expected to fly for another 50 years. If we went to war today with 100-year old aircraft, we would be flying World War I vintage aircraft. This longevity is the plan and the NDBI is to help make this happen. This is the type of work the Center provides.

Key partnerships in the Aerospace-Defense Program include Defense Acquisition University (in essence the internal corporate business University for the Defense community), Oak Ridge National Laboratory, Howard Baker Center for Public Policy, and the Air Force AFSSO21. AFSSO21 stands for Air Force Smart Operations for the 21st Century. It is a process improvement effort. For years MIT was considered the lead partner in working with the Air Force on lean and process improvement. This changed about four years ago. Funding from MIT was sharply curtailed by the Air Force and funding at UT took a big upswing. We have been partners with the Air Force since this time. It is a competitive business, but UT is doing very well in this field. UT has become the "clearinghouse" for anyone interested in aerospace defense work from a business perspective. Examples of Work in Progress include: Chief Management Officer Study - guidelines for standing up new offices to oversee Air Force transformation; Tail-up Cost Study--why it costs so much to close down a defense program; Cyber Command Organization Study--how should the Department of Defense organize its efforts in defending cyberspace; Navy Destroyer Acquisition Plan--impartial assessment of major acquisition program; and Innovation and Leadership--what can the Air Force do to encourage innovation at the 3- and 4-star levels.

Dr. Miller discussed the research and development funding strategy for the Aerospace Defense Program. The reputation and strong relationships with the aerospace defense community moves the cycle to increased funded research opportunities, leading to discoveries relevant to other industries and these discoveries provide spinoff opportunities for even more industries, providing additional experience relevant in

aerospace defense areas, and in building a strong margin for reinvestment. Examples of recognition to date are participation on teams that have won an Edelman award and numerous Shingo prizes; selection to provide Lean Leadership to all general officers, senior civilians, and master chiefs across the entire Air Force operations; invitations to testify at Defense Acquisition Reform Panels of the House Armed Service Committee Hearing; and attraction of corporate sponsorship by corporations such as Boeing, GE, Lockheed Martin, Northrop Grumman, Pratt & Whitney, and Raytheon.

CEE is an integral part of the College of Business Administration and supports the College's current priorities. Those include becoming the #1 ranked public MBA institution in the SEC within the next five years. (Florida is currently #1; UT is now tied with South Carolina as #2.) This goal will coincide with CEE's 100th birthday. Another priority includes the USAF funding another \$35M while adding significant Army research contracts for NDBI. The CEE is targeting \$4M in healthcare programs by 2011 and wants to launch its premier Global Supply Chain EMBA and rank in the top three supply chains in the world.

A real concern and priority is for CEE to help the College of Business Administration address its teaching capacity gap. There is currently a real crisis in CBA with an unprecedented demand for undergraduate programs. This is happening at a time when the faculty numbers are trending downward due to budget cuts. One out of four undergraduate majors at UTK now is in CBA. The current economic situation and CBA's national rankings are pushing this capacity gap to further unprecedented levels. The CBA does not have sufficient revenue program fees to handle this growth and this threatens the quality of degree programs. Faced with this situation, there may have to be a cut in the number of students allowed in CBA. Mr. Horne asked why there could not be more revenue for programs without the need to cut the number of students. The CEE is working to address these and other issues.

Mr. Stansberry thanked Dr. Miller for his excellent presentation on this outstanding program.

IX. Other Business

Mr. Stansberry asked if there was other business for the committee. There was none.

X. Adjournment

Mr. Stansberry asked for a motion for adjournment and Mr. Talbott made a motion for adjournment. The meeting was adjourned at 10:50 a.m. Mr. Stansberry thanked the committee for their participation in today's meeting.

Respectfully submitted,

David E. Millhorn, Ph.D.
Executive Vice President