<u>Charge to Advisory Task Force on Best Practices Regarding Affiliated</u> <u>Foundation Relationships</u> <u>November 15, 2012</u>

The Task Force is asked to make recommendations to the U. T. System Board of Regents, within 180 days, to assure that relationships between U. T. System institutions and the U. T. System and affiliated foundations are optimally structured to serve as a national model for public universities for the best management, compliance, and oversight practices. The recommended model will allow all involved in this important nonprofit volunteer service to serve most effectively and efficiently in the 21st century and beyond.

In the spirit of continual improvement, the Task Force is asked to review issues concerning best patterns for interactions with separately incorporated legal entities set up to benefit the U. T. System or one or more U. T. System institutions or operations. Individual budget units within the U.T. System that carry the historical name "foundation" but are not separate legal entities are not the focus of this review.

The Task Force is encouraged to talk with each U. T. president, seek the participation of the presidents and officers of affiliated foundations, and include national experts in the dialog. A representative of the Texas Attorney General's office will provide advice and support to the Task Force.

Work of the Task Force should include the identification of best practices, with particular emphasis on

- 1. Best structures for affiliated foundations/university interactions and reporting
- 2. Ideal location of and staffing for foundation offices
- 3. Methods for request, record-keeping, and provision of funding for university support to assure no impermissible direct benefits to U.T. employees
- 4. Overlaps in foundation and university fund-raising
- 5. Compliance with today's legal requirements concerning conflicts and tax issues
- 6. Enhance delineation of roles of university and foundation activities to reduce confusion or ambiguity

7. Ensure alignment between university-affiliated foundation and university missions

Task Force Membership:

Regent Brenda Pejovich, Chair Regent Robert Stillwell Regent Wallace Hall, Jr. President Diana Natalicio President David Callender Chancellor Francisco G. Cigarroa, M.D., *ex officio* General Counsel to the Board Francie Frederick, *ex officio* Vice Chancellor Randa Safady, *ex officio* Vice Chancellor and General Counsel Barry Burgdorf, *ex officio*

Participation to include:

Institutional presidents Foundation presidents and officers, invited National experts Representative of the Office of the Attorney General of Texas

JOINT ENGINEERING EDUCATION TASK FORCE

Appointed by Chairman Powell and Chancellor Cigarroa

November 15, 2012

PREAMBLE

The State of Texas has a vibrant economy and excels in competing economically within the United States and internationally by creating jobs and attracting new companies to Texas. Texas is now #1 in the number of Fortune 500 companies domiciled in the State and more large companies are coming.

The field of engineering enhances the economic vibrancy in Texas, as well as national security and the health and quality of life for all citizens of our State. It is important to determine if the higher education System of the State of Texas has the capacity to produce the number and the right types of trained engineers to support the increased workforce demands of the State's continued economic growth. Success in the field of engineering will better position Texas to address opportunities and challenges throughout our future, which will ultimately benefit the citizens of Texas, our nation and the world.

CHARGE

For higher education institutions within The University of Texas System to remain a key partner in the State's continued success, we must develop a better understanding of future engineering needs in Texas. Planning aggressively to meet those needs now, requires answers to significant questions concerning undergraduate and graduate engineering education and research. A joint task force, appointed by the Chairman of the Board of Regents and the Chancellor of the U. T. System is charged with reviewing and identifying key issues related to demand, capacity, efficiency, supply, and research related to engineering programs in the State of Texas; how these issues impact Texas and the nation; and what The University of Texas can do to be most responsive to the State of Texas' needs.

The following questions are among those suggested for consideration:

- 1. What is the current and future <u>demand</u> for undergraduate and graduate engineers over the next 25 years?
 - What disciplines of engineering will be in demand?
 - How many bachelor's, master's and doctoral degrees will be needed in each discipline?

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• If Texas significantly strengthens its educational and research capacity in engineering, will that create even more demand for engineers by strengthening opportunities, for example, in areas such as research and manufacturing? Will the demand change if Texas becomes more competitive in engineering enterprises and more prosperous overall?

- Would enhanced relationships between our universities and the private sector assist in better predicting and accommodating the demand? If so, how is this best done?
- 2. What is the current engineering education <u>capacity</u> for undergraduate and graduate students within the U. T. institutions and how do those capacities meet the needs identified?
 - How close are existing engineering undergraduate and graduate programs to full enrollment capacity, and what steps would be necessary to increase capacity to the levels identified as needed over the next 25 years?
 - What disciplines require an increase or decrease in capacity?
 - What are the mechanisms available to manage capacity and demand?
 - What are the costs associated with increasing the undergraduate and graduate engineering degree programs both in facilities and human capital?
 - How can we continue to attract the best faculty and students to our universities and our State?
 - What is the role of community colleges in producing high-quality students for engineering? Is there a benefit to cooperative agreements with community colleges to assure high standards are met for the preparation and transfer of students in engineering?
- 3. What is the current engineering graduation <u>efficiency</u> for undergraduate and graduate students at each State institution as a percentage of 1st year enrollments?
 - How does graduation efficiency at U. T. institutions compare to peer engineering programs in other states?
 - Are there significant obstacles limiting graduation efficiency for both undergraduate and graduate programs?
 - What are the existing student-to-faculty ratios at engineering programs for undergraduate and graduate students in our institutions, and how do these compare with peer institutions within Texas and in other states?
 - What are the ideal student-to-faculty ratios in engineering programs for undergraduate and graduate students? Should there be different ideal ratios for Tier One universities, emerging research universities and comprehensive universities?
 - What is the role of blended, online and MOOC's for colleges of engineering?
 - Would greater collaboration among colleges of engineering and among academic and health institutions benefit the State? If so, what opportunities exist for collaboration among colleges of engineering in the area of joint degrees; what

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opportunities exist for collaboration among academic and health institutions, especially in the fields of biomedical engineering?

- 4. What are the best means to <u>prepare</u> and <u>attract</u> qualified K-12 students to engineering to <u>supply</u> the future needs of the Texas economy?
 - Is there a role for UTeach statewide to enhance pipeline of college ready students in engineering?
 - What does the "pipeline" for college-ready (especially STEM) high school graduates applying for engineering degree in Texas and at U. T. System institutions appear to be now and in the future?
 - Are additional strategies needed to keep the best and brightest engineering students in Texas?
 - Are there examples of existing programs designed to strengthen the STEM pipeline to Texas institutions?
- 5. How can The University of Texas System enhance its success in Engineering Research that improves the quality of life?
 - What are the trends for colleges of engineering in attracting external funding to support research and students? How do these trends compare with peer engineering programs?
 - Are the research infrastructures adequate?
 - Are undergraduate students actively engaged in engineering research?
 - Are businesses actively partnering with colleges of engineering in engineering research?
 - Are there industry/university partnerships that make sense, which allow greater success in the field of applied research?
- 6. What is the quantifiable <u>impact</u> of colleges of engineering on business and prosperity in Texas?
 - What are the estimates of economic impact, such as jobs created, of colleges of engineering?
 - From business' point of view, how can the impact of colleges of engineering be strengthened even more?
 - What are the connections between engineering schools, the business sectors and business schools? Are they as fully developed as they should be?

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- How well is technology transfer working with our colleges of engineering? Are there additional steps that might improve technology transfer and commercialization? Can the System provide assistance in this area?
- 7. Are there additional strategies by which the Texas Legislature or The University of Texas Board of Regents can foster increased success in engineering?
 - Are there efficiencies not yet identified?
 - Are there additional strategies to incentivize greater efficiencies in graduation rates?
 - Would it benefit the economy to encourage foreign-born engineering graduates to stay in Texas for some period after graduation? If so, how is this best done?

Charge for the Task Force on Academic and Facility Planning for the 21st Century Statement by Chairman Powell November 15, 2012

Our recent partnership with edX has made us more aware that higher education is changing rapidly, and it is critical to be sure new academic facilities are built for the future, not the traditional past. In acknowledgement of the need for the most efficient space planning and utilization, and in keeping with the Framework's goals, I have asked the Chairmen of the Facilities Planning and Construction Committee and the Academic Affairs Committee to work together to schedule future meetings to recommend the best metrics planning for use in the design process for facilities to support universities of the 21st century.