



# Outline of Testimony

*Senate Subcommittee on Higher Education  
Charge #4—Flagship Institutions  
July 23, 2008*

Commissioner Raymund A. Paredes

## Committee Charge:

Study the need for new higher education institutions and make recommendations for developing a long-term strategy for creating and supporting new institutions, especially additional flagship public research universities. Explore methods for determining where such universities should be located and ensuring that such universities admit a qualified and diverse student body. Consider the state's allocation of and need for resources for medical education, including graduate medical education, geographic distribution of those resources, and the value of associating a medical school with a top-tier academic campus.

## Overview:

- I. **For Texas' size and national prominence, establishing the next national research university is a logical step.**
  - a. Texas currently has only 2 public institutions that are members of the Association of American Universities—the gold standard for top-tiered research institutions in the nation.
  - b. In comparison, our chief competitor in both population and economy—California—boasts 6 public institutions that are members of AAU.
  - c. For Texas to remain competitive, the state must carefully and methodically employ its limited resources to establish another

national research university while simultaneously nurturing its existing research institutions.

**II. The Association of American of Universities (AAU) and the Center for Measuring University Performance (CMUP) are national clearinghouses for evaluating top-tiered research institutions.**

- a. They examine slightly different criteria to evaluate such institutions.
- b. The CMUP's criteria include total research expenditures, endowment assets, memberships in the National Academies of Sciences, Engineering and Medicine, and doctoral awards.
- c. The AAU looks at faculty quality rating, undergraduate education, and research funding, among other criteria.

**III. The Coordinating Board has not identified specific criteria by which an emerging research institution should be evaluated to determine whether it is well-positioned for national research status.**

- a. Coordinating Board staff has started some initial analysis to see where Texas' emerging research institutions stack up on some key measures against national peers.
- b. The Coordinating Board staff pulled key criteria that are shared by both the AAU and CMUP and applied them to Texas emerging research institutions, as well as to UT-Austin and TAMU.
- c. Additionally, we identified a small number of national research institutions that are generally considered peers and applied these same criteria.
- d. These institutions include: University of Kansas, University of Arizona, University of Missouri, and the University of Nebraska.

**IV. Criteria #1: Federal Research Expenditures**

- a. Research expenditures are always a key component of any evaluation of a national research university.
- b. For FY 2006, the University of Arizona led the pack among select peer universities with more than \$207 million in federal research expenditures, which was far greater than the Texas

institutions or other national peers. As an example, the University of Kansas had \$62 million in federal research expenditures.

- c. By comparison, the University of Houston had the highest level of federal expenditures among our emerging research institutions in FY 2006, with \$40 million.

**V. Criteria #2: Number of Doctoral Degrees Awarded**

- a. Doctoral degrees awarded indicate the relative strength of graduate education at a institution and is paramount for cultivating research at top-tiered institutions. For this reason, this criteria is shared by both AAU and CMUP.
- b. The University of Arizona awards approximately 400 doctoral-level awards each fiscal year.
- c. The top two emerging research institutions in Texas for this category (University of Houston and Texas Tech University) both award approximately half that amount (236 and 199, respectively in FY 2006).
- d. UT-El Paso and UT-Arlington award fewer than 100 degrees annually, with UT-San Antonio awarding only 21 total degrees in FY 2006.

**VI. Criteria #3: Doctoral Degree Programs Awarding Degrees Annually**

- a. Again, the relative strength of a national research university is the breadth and depth of graduate education, which is why both AAU and CMUP examine the number of doctoral degree programs that award degrees in a given year.
- b. Interestingly enough, there is not much separation between our selected peer institutions and Texas' emerging research institutions—most have approximately 20 degree-conferring doctoral programs each year.
- c. However, based on the number of degrees actually awarded at the selected peer institutions, it appears they are far more productive in graduating doctoral students.

**VII. Criteria #4: National Academy members and faculty awards**

- a. The vigor and prominence of both faculty achievement and university performance relative to peers can be measured qualitatively by examining the number of national academy members in science, engineering, and medicine, as well as the number of prestigious faculty awards received annually.
- b. There is clear disparity between most of our select peer institutions and Texas' emerging research institutions in this area.
- c. The University of Arizona faculty won 18 national awards in FY 2006.
- d. Comparatively, the University of Houston and Texas Tech University totaled 7 such awards between them.
- e. In FY 2005, the University of Arizona and the University of Kansas had 38 National Academy members on faculty, while the University of Houston and Texas Tech University had 10 National Academy members.

**VIII. Other considerations for evaluating position of next major research institution.**

- a. Regional and statewide needs for population and economic development should be part of the evaluation process.
- b. The Metroplex, Central Texas, South Texas, the Gulf Coast, and the Upper Rio Grande (specifically El Paso) are expected to see the highest population growth in Texas over the next decade.
- c. Local and regional business and industry also provide natural advantages for establishing a nationally prominent research institution

**IX. The Coordinating Board staff is preparing to systematically evaluate and recommend a process and criteria by which policymakers can identify where the next national research university in Texas should be established.**

- a. It is important to recognize that whatever the state decides in this regard, it will require significant investment to elevate such an institution to the moderate level of achievement some

reasonable peer institutions have reached, as illustrated in this presentation.

- b. It is also critical that we continue to invest in our existing major research institutions as they also have much room for improvement to achieve parity with some of the premier institutions in the nation.
- c. And finally, we must continue to remember that undergraduate teaching institutions still play the most critical role in helping the state achieve the goals of *Closing the Gaps by 2015*.